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THE COMMERCIAL POSITION OF THE BRITISH EMPIRE.

In the many discussions which are taking place with regard to the commercial supremacy of Great Britain and the relative progress of her foreign competitors, the view of the disputants is too often confined to the trade of the British Isles alone. But that does not comprise the whole of the trade of Great Britain, whose subjects, residing either at home or abroad, are daily engaged in vast operations the records of which are not preserved in the statistical returns of the United Kingdom. To grasp the limits of British trade we must follow the British flag. This appears to the present writer not to be quite understood by Americans generally, who can pretty accurately gauge the commerce of the United States by the entrances and clearances at American ports, and by the statistics of their internal traffic. As I pointed out in a previous article in this review,[1] the British Empire produces more than it consumes of most things, and it needs an access to all markets for its surplus.

But what is the British Empire? It is not the British Isles alone, but the British Isles *plus* Canada, India, Australia, British South Africa, British West Africa, British East Africa, the West Indies, and countless unconsidered trifles of possessions scattered over the four quarters of the world. The volume of trade carried on between these possessions, and between these possessions and foreign countries, without ever passing through the ports of the United Kingdom at all, is as much British as if it flowed through the custom-houses of these ports. It seems to be overlooked by most commentators that the volume of this British-Im-

[1] "The Development of British Shipping." THE FORUM, for December, 1900.

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perial, as distinguished from British-Insular, trade is constantly increasing, and must in the very nature of things go on increasing, not only numerically, but in a progressive ratio, as the economic development of the colonies and possessions advances. It is impossible, therefore, to estimate properly the commercial position of Great Britain among the nations without bringing into focus the trade of all her outlying parts. Practically the whole of that trade is organized, financed, and controlled in London, Liverpool, or Glasgow. The Australian banks and finance companies finance the pastoral and other industries of Australia, but they do it with capital provided by the mother-country. As Lord Bacon wrote:

"The greatness of an estate in bulk and territory, doth fall under measure; and the greatness of finances and revenue doth fall under computation. The population may appear by musters: and the number and greatness of cities and towns, by cards and maps. But yet there is not any thing amongst civil affairs, more subject to error, than the right valuation, and true judgment, concerning the power and forces of an estate. . . . Walled towns, stored arsenals and armories, goodly races of horse, chariots of war, elephants, ordnance, artillery, and the like; all this is but a sheep in a lion's skin, except the breed and disposition of the people, be stout and warlike. Nay, number itself in armies, importeth not much, where the people is of weak courage; for (as Virgil saith) 'It never troubles a wolf, how many the sheep be.'"

Well, "the power and forces" of the British Empire, though supported by numbers, do not depend upon numbers but upon "the breed and disposition of the people" who from two tiny islands control the destiny of nations, and conduct half the commerce of the world.

The British Empire, which is really Greater Britain, covers an area of 11,000,000 square miles, and contains a population five times as large as that of the United States. The French Empire with its colonies covers an area of only 3,500,000 square miles, and contains a population not so large as that of the United States. Germany has added 1,000,000 square miles to her imperial territory in Africa and Polynesia, but only 11,000,000 persons to her imperial population. The external possessions of the United States have added 125,000 square miles to the area and 9,000,000 to the population of the Union. The colonies of Germany and France are the source of a heavy annual expense to the treasuries of the mother-lands. What the new territories may be to the United States remains to be seen. The colonies of Great Britain are no source of expense to the mother-country, but a large source of strength and of profit. They are in point of fact, though not in political organization, provinces of the empire of which they form part and parcel. It is in this sense that they must be regarded when we would measure British commerce.

It was in the times of good — or bad — Queen Bess that England woke up to find that she had a vocation, namely, to the trade and com-

merce of the sea. Then she spread herself abroad, founded the plantations and colonies of North America, and jostled the Spaniards from the Spanish Main. Since then, her empire has not ceased to grow; but it is not an empire in the sense that Rome or France was an empire, or that Russia is an empire. It is not "a congeries of nations held together by force," but one nation with harmonious, though self-managing, parts. There is more community of interest and closeness of sympathy, more sincere attachment and mutuality, between the mother country and her colonies than there is between the Empire State and the States of the Pacific slope of America. When an Australian, a South African, or a Canadian has occasion to go to London on business or pleasure, he is not merely going to the capital, he is "going home."

The soul of the average man abhors figures, and is disposed to regard the officials of the Statistical Department and the members of the Statistical Society as fiends in human form, whose mission in life is to pander to the politician. Therefore he scoffs, and says that anything can be proved by statistics. But it cannot, though a good deal of deception may be practised by the abuse, or ill-use, of statistics. Nor does one need a mathematical capacity to appreciate the value of statistical records. Without the aid of figures it is impossible to bring the magnitude of the British Empire, its finance, and its commerce, before the reader. Therefore, I must ask him both to excuse and to ponder over the figures I am now going to tabulate. In the first table I set forth the superficial area and the public finance of the British Empire in Europe, Asia, Africa, America, and Australasia; in the second the statistics of its trade:

THE BRITISH EMPIRE.

	Area square miles.	Population.	Revenue.	Expenditure.
United Kingdom	120,979	40,909,925	£119,839,905	£133,722,407
India	1,800,258	294,266,000	67,617,800	64,976,920
Europe	119	206,350	414,220	410,870
Asia	27,321	4,359,760	2,599,390	2,478,010
Africa	535,398	6,773,360	9,686,520	10,122,680
America	3,347,336	7,420,640	12,651,710	11,636,180
Australasia	3,175,666	4,986,070	33,463,860	31,915,920
Total, United Kingdom and Colonies	9,007,077	358,922,105	£246,273,405	£255,262,987
Protectorates—				
In Asia	120,400	1,200,000		
" Africa	2,160,000	35,000,000		
" Pacific	800	30,000		
Grand total, British Empire	11,288,277	395,152,105		

EXTERNAL TRADE OF THE BRITISH EMPIRE.

	Imports.	Exports.	Tonnage entered and cleared.
United Kingdom	£563,146,659	£387,522,633	97,783,000
India	64,185,440	78,046,690	8,627,486
Europe	.....	.....	15,219,191
Asia	35,183,610	30,087,920	38,264,712
Africa	30,569,170	29,941,270	13,628,373
America	43,453,090	42,791,980	24,384,943
Australasia	72,640,240	89,508,870	23,290,355
Total, United Kingdom and Colonies	£809,178,209	£657,899,363	221,198,060
Protectorates (estimated)	2,500,000	2,500,000	
Grand total, British Empire	£811,678,209	£660,399,363	221,198,060

This gives a total trade of the British Empire, with its own component parts and with foreign countries, of £1,472,077,572, irrespective, of course, of the value of the home trade of the mother-country and of each colony. The above figures are the latest obtainable; but they do not all refer to 1900, and some are of as early a date as 1898. Now the value of the world's commerce in 1898 was, according to the Chief of the United States Bureau of Statistics, £3,983,000,000; so that the share of it possessed by the British Empire is nearly 40 per cent. I do not, however, know on what Mr. O. P. Austin founds his estimate, or whether in his figures he includes the internal trade of the American continent. The figures I am using relate only to trade which actually passed through the custom-houses. In the following table is shown the extent of the trade of the dependencies of Great Britain, between themselves and with the mother-country:

INTERCHANGES OF THE BRITISH EMPIRE.

	Imports from U. K.	Exports to U. K.
United Kingdom	.....	
India	£37,777,900	£23,451,190
Europe	.....	
Asia	4,960,950	8,642,660
Africa	20,814,110	24,882,230
America	11,719,780	23,545,570
Australasia	26,758,260	35,993,850
Total, United Kingdom and Colonies	£102,031,000	£116,515,500
Protectorates (estimated)	2,500,000	2,500,000
Grand total, British Colonies	£104,531,000	£119,015,500

On an average basis of £10 per ton of cargo, this in-and-out commerce of the empire would require, say, 148,000,000 tons of shipping. The actual clearances of vessels in the years to which the figures relate aggregate, as will be seen above, 221,198,060 tons, which, however, is rather the carrying capacity of the vessels entered and cleared than the actual weight of the cargo loaded and discharged; but it does not include the weight of coal taken on board for the use of ships at the home ports and the coaling stations. Now the tonnage of vessels owned by Great Britain and her colonies is, in round numbers, 15,250,000 tons, the vessels ranging in size from 100 tons to 20,000 tons. With some 21,900 vessels on the registers, this gives an average of 700 tons per vessel; though averages arrived at in this way are apt to be misleading. As a matter of fact, the greater part of the carrying trade of the world is done by steamers of from 1,000 to 4,000 tons each.

Suppose, however, we figure on the average of 700 tons, and estimate that each vessel makes six voyages per annum, not an unreasonable average considering the number of weekly and fortnightly runs between Britain and the Continent. This would mean that vessels under the British flag are able to carry in and out something like 200,000,000 tons of cargo per annum. Of course, ships do not get full cargoes every time, and have often to be laid up long periods for repairs; but there are large numbers of vessels getting full cargoes in and out of ports every week. Assuming Mr. Austin's estimate of the value of the world's commerce, £3,983,000,000, to be approximately correct, we might assess the average value of it at £10 per ton, for it includes bullion and precious ores. This would, then, represent a tonnage weight or capacity of 393,000,000 tons. Therefore, British vessels can carry and do carry more than half the sea-trade of the world.

The following is a bird's-eye summary of

THE TRADE OF THE BRITISH EMPIRE.

	Total imports and exports.
United Kingdom	£950,669,292
India	142,232,130
Possessions in Asia	65,271,530
Possessions in Africa	60,510,440
Possessions in America	86,245,070
Possessions in Australasia	162,149,110
Protectorates	5,000,000
Grand total	£1,472,077,572

It used to be a common error of those who attempted a statistical survey of the commerce of the world to omit from Britain's proportion

the value of the ships she builds and sells to foreigners. This error has to some extent been rectified within the last two years, because the Board of Trade returns now include the value of new ships sold to foreigners. The value of these last year was £8,608,153. In almost every case such vessels, on leaving the builders' hands, fill up with coal, or other cargo, to take to their port of destination. They may never enter a port of the British Isles again; yet they swell the volume of the year's entries outward of tonnage under foreign flags, and the total so entered alarms those who do not know how the increase occurs. But, besides new ships, we sell a large number of second-hand vessels every year to foreigners, and replace them with new ones for ourselves. These second-hand vessels run at a low working cost, under foreign flags, not American; compete very severely with British vessels in the freight market; and keep down the profits of ship-owning. But they help the development of the world's commerce in a wonderful degree. These sales — whether to our benefit or to our hurt — are trade operations that ought to be reckoned among our exports just as much as the sales of coal to foreigners. Last year these sales amounted to between £5,000,000 and £6,000,000.

But the value of the volume of Britain's share in the world's commerce is augmented in a much larger degree by what her vessels do for foreign countries. The amount of freight so earned by British vessels, which may not enter a British port for years, cannot now be less than £80,000,000 per annum, for it was computed by a reliable authority four years ago at £70,000,000, and large additions have since been made to our tonnage. The cargo carried by these vessels figures in the imports and exports of the countries between which they trade; but the freight earned is as much a British receipt as the money paid for an exported cargo of Manchester cottons. It should be added to the above summation of the value of the external trade of the British Empire. It would be an instructive object-lesson in maritime commerce if some official would compile from the national records a statement of the number, size, and character of all the vessels under the British flag which are engaged in trading all the year round between foreign ports alone.

Perhaps the most striking instance one could indicate for American readers is the case of the Anchor Line of Glasgow, which has a service of large and costly steamers regularly employed in carrying cargo and peasant-laborers from Italy to the United States and back again. These Italian laborers leave the Mediterranean in the spring and earn enough money to pay their passage back in the fall — to sunshine and idleness

at home in the winter. It is a large trade, and the steamers engaged in it do not touch at a British port at all, and never return to the United Kingdom until they need overhauling or repairs. Again, there are large numbers of British vessels in the Pacific which never come home, and which rarely enter a British port. The second largest, if not now the largest, merchant fleet in the world in point of tonnage — that of the British India Steam Navigation Company — has most of its vessels constantly engaged in Eastern waters, many of them never seeing Great Britain from the time of their birth until they are brought home to die.

Mr. Brooks Adams has recorded his opinion that between 1760 and 1870 Great Britain reached the plenitude of her prosperity. She did so, he thinks, chiefly because of the American trade:

"As late as 1840 a disparity existed between England and the United States which to-day seems almost incredible. While England's exports of manufactures then reached $613,000,000, those of the Union only slightly exceeded $40,000,000; and while in 1840 Great Britain had substantially completed her railroad system, that of the United States lay in embryo. Thirty thousand miles of road were then in operation; nearly 200,000 are now in use, and even in 1900, 4,500 more were added. The United Kingdom, in 1898, possessed altogether 22,000 miles, and building has long gone on at the rate of a hundred miles a year. The burden of construction on the two communities can be easily compared. In 1860, with the facilities then existing, neither iron, nor coal, nor grain, nor any meat, could be exported from America in competition with the products of British mines or farms, while, on her side, Great Britain could sell her manufactures in the United States almost at her own price. The reason for this is obvious. A generation ago land rates of transportation could not be made even to approximate sea rates, therefore iron, for instance, could not be brought from the interior to the ports. England had substantially no land carriage. Her resources lay on the coast."

Yes, but they were not confined there. And, if the United States has ten times the mileage of Great Britain, Great Britain has seven times the tonnage of the United States. But in comparing railway mileage we ought not to confine our view to the British Isles. In the United Kingdom there are 21,700 miles of railway, but in India there are 23,403 miles, in British Africa 4,457 miles, in British North America 18,233 miles, in Australasia 15,248 miles, and in all the British Empire 83,348 miles. This is a good third of the mileage owned by the United States, whose area is essentially self-contained. And when the railway systems of India and Africa are complete — they are being steadily advanced year by year — our total will stand closer comparison with that of the United States. But Mr. Brooks Adams is a pessimist. He says elsewhere:

"As early as 1882, the iron mines of the United Kingdom yielded their maximum at 18,000,000 tons of ore; in 1898 the yield had fallen to 14,000,000. In 1868, 9,817

tons of copper were produced, in 1898 640 tons. Two years later the turn came in lead, the output in 1870 having reached 73,400 tons as against 25,355 in 1898; while tin, which stood at 10,900 tons in 1871, had dwindled to 4,013 according to the last returns. The quantity of coal raised, indeed, increases, but prices have advanced from 50 to 70 per cent during the year, and though now they tend to fall, it is only through a shrinkage of the industrial demand, caused by inability to compete on such a basis. The end seems only a question of time. Europe is doomed not only to buy her raw material abroad, but to pay the cost of transport."

The decrease in the yield of the iron mines of the United Kingdom is due to the fact that the run is now on steel, and that the deposits of hematite ore in the British Isles are limited. Britain has to import hematite ores, as, perhaps, the United States may have to do ere many years. As to copper, lead, and tin, less of these is produced in the British Isles, but more is produced in the British Empire. In Australia and the Straits Settlements we have as much copper, lead, and tin as we want — and a good deal more. And in Australia, Africa, and India we have the largest gold supply in the world. Yet Mr. Brooks Adams writes as if a decline in the output of more expensively worked ores in the United Kingdom were an evidence of British decay. We have found something better than mining in Cornwall and Cumberland. As to coal, the decline in price is a thing to welcome not to lament. It is in the nature of the article to fluctuate with the industrial demand; but it may be noted, incidentally, that the present slide-down in British coal is primarily due to the relaxation in the pressure of the foreign demand, not to a slump in the home consumption.

In the March number of this review Mr. Jacob Schoenhof shrewdly observed that the chief error in discussing the question of trade arises from the fact that few are acquainted with the fundamental conditions producing results. "Hence the fact that a few isolated items in which deficiency has been discovered are taken as illustrative of general decline, and the question is treated as a whole without any attempt at specialization or analysis." This remark had reference to the ever-prevalent discussion about Britain's decline in commerce. But it seems to me that a greater mistake still is made in measuring the commercial position of Britain by the statistics of the United Kingdom alone. As a political entity in all public discussion, Britain is regarded as a world-wide empire, with obligations and responsibilities, and also with rights to be respected, in all quarters of the globe. But as a commercial entity, when the relative progress of other nations is being discussed, Britain is too often regarded merely in the light of the Board of Trade returns, which record merely the imports and exports of England, Scotland, and Ireland.

Does it matter much, from an imperial point of view, whether we get copper from our mines in Canada instead of from our mines in Cornwall, or tin from Tasmania instead of from Truro? It is all produced, and most of it is used, under one flag, and it is all financed in London. Again, is it a national loss or an imperial gain that Great Britain should draw grain, fruit, flesh meat, and dairy produce from Canada and Australia? She cannot produce in the British Isles all the food she needs; but what she draws from these distant members of the empire is British produce all the same. The time may come when the United States will have no grain or beef to spare for export, whilst Britain will still have her sources of supply in the vast continental areas of Canada, Australia, and South Africa. Last year £178,513,847 of the imports into the United Kingdom were duty-free articles of food and drink; £27,242,421 were dutiable articles of food and drink; £9,614,637 were living animals for food; and £142,549,334 were food for our factories — raw material.

The following table is not meant to be exhaustive, but only illustrative of a few little facts ignored by Mr. Brooks Adams:

TABLE OF EXPORTS.

From		1885.	1900.
India			
Metals.....	Rx.	183,859	451,348
Ceylon			
Plumbago....	cwt.	196,399	635,224
New South Wales			
Copper	cwt.	.....	108,902
Silver lead..	"	3,808	8,514,179
South Australia			
Copper.....	cwt.	70,354	110,162
Lead.....	tons,	9	35,077
Silver lead..	"	194	20,957
Tasmania			
Copper	cwt.	.....	166,860
Tin	"	.....	45,920
Queensland			
Copper	cwt.	1,132	19,300
Tin	"	.....	20,000
Cape Colony			
Copper	"	400,000	550,000
Canada			
Copper.....	"	25,140	85,700
Lead.....	"	80	340,580
Nickel	"	.....	14,280
Newfoundland			
Copper		£21,337	£60,051

In a review of the world's commerce recently issued by the Bureau of Foreign Commerce, Washington, it is stated that during the last year the inundation of foreign markets by American goods proceeded with a constantly growing volume and force, surmounting many difficult obstacles and offering a strong temptation to over-confidence in the capabilities of the United States as an exporting nation. At the present time the United States is said to be nearing the top wave of industrial eminence, and there is ample reason for the belief that the next few years will witness a great expansion in the sale of her more highly de-

veloped manufactures. But in the annual reports of the consular officers for the year 1900, there runs, along with a common note of satisfaction, a warning, here and there, of a more strenuous competition, which in the end may counterbalance the superior advantages of America to a considerable extent, and check her progress in the world's markets, unless she equips herself for the ultimate phases of the struggle. It is a bigger task than most Americans are aware of, when they rejoice over the growth of their exports, without quite realizing how big a thing international trade has become since the Stars and Stripes covered most of the cargo on the transatlantic routes.

To compare with the foregoing I submit the following tables, which show the imports and exports of the United States, by grand divisions, in the calendar years 1890 and 1900. In the figures showing the distribution by continents in 1900 the December distribution is estimated, though the grand total of imports and exports for 1900 is based upon the complete figures of the Bureau of Statistics:

EXPORTS FROM THE UNITED STATES.

To	1890.	1900.
Europe	$682,585,856	$1,111,456,000
North America	95,517,863	202,486,000
South America	34,722,122	41,384,000
Asia	22,854,028	60,598,000
Oceanica	17,375,745	39,956,000
Africa	4,446,934	22,170,000

IMPORTS INTO THE UNITED STATES.

From	1890.	1900.
Europe	$474,656,257	$439,500,000
North America	151,490,330	131,200,000
South America	100,959,799	102,000,000
Asia	68,340,309	122,800,000
Oceanica	23,781,018	23,400,000
Africa	3,169,086	9,900,000

Nothing is more marvellous, as Mr. O. P. Austin says, than the development of commerce in the nineteenth century — an increase he computes at 1,000 per cent while the increase in population was less than 150 per cent. How large a proportion of that increase is due to the wonderful growth of the United States of America is pretty well known to every schoolboy in the American Union. But it does not appear to the present writer to be so well known as it ought to be in America how much of the world's commerce has developed and is growing under the British flag. When Arthur Young said, about the beginning of the last century, that the American Revolution had proved a blessing to the world, but more so to England than to America, he was

laughed to scorn. But it was, as he said, one of the most remarkable and singular experiments in politics that the world has ever seen, "for a people to lose an empire of thirteen provinces, and to gain by that loss an increase of wealth, felicity, and power." What the end of another century may show it is well not to attempt to predict; but the world has never seen anything like the past hundred years' growth of both Britain and America.

As Mr. Austin has eloquently put it:

"All the great developments of this wonderful century have combined to aid commerce, and articles which at its beginning were luxuries enjoyed only by the rich are now considered necessaries by the masses. The natural products of the tropics have become the necessities of the temperate zone, and the manufactures of the temperate zone are demanded for daily life in the tropics. The grain-producing areas of the newer countries contribute to the food supply of the Old World, and take in exchange the products of its workshops; and the Orient yields its silks, teas, and spices in exchange for food-stuffs, machinery, and manufactures. Meantime, Finance, with its consummate art of balancing commodity against commodity and exchange against exchange, sits aloft, and with golden reins skilfully guides the transactions which steam and electricity thus make possible, balancing the sales of one country against the purchases of another, weighing the value of this and measuring the usefulness of that, bringing order out of what appears endless confusion and hopeless disorder, and by its skilful, complex, and silent machinery making possible this enormous exchange of commodities with the transfer of the smallest possible proportion of circulating medium."

But, perhaps, the average American does not sufficiently acknowledge how the development of the Tropics and of the Southern Hemisphere has been essentially the work of Britain, and how necessities caused by that development have made markets for American natural products, the wealth drawn from which has enabled the United States to become, in turn, a great industrial nation.

Let us now compare the external trade of the whole British Empire with that of its three greatest competitors:

	Imports.	Exports.	Total.
British Empire	£811,678,209	£660,399,363	£1,472,077,572
United States	194,905,000	332,980,000	527,885,000
Germany	277,823,350	220,716,650	498,540,000
France	176,341,200	163,121,280	339,462,480

If these figures are added up and compared it will be seen that the external trade of the British Empire is £106,190,092 *more* than the whole external trade of the United States, the German Empire, and France put together!

Commerce, says Emerson, is a game of skill, which everyone cannot play, and which few men can play well. For "men" read "nations,"

and apply the apophthegm to the international position. I do not find, in spite of the alarmists, any evidence that the British nation has lost its inherited ability to "play well." The fact that other nations have improved does not imply that we have deteriorated in skill. We may keep up the best total score without winning every rubber. "Trade's proud empire hastes to swift decay" may do very well as a quotation for the platform address of a Socialistic tub-thumper, but it is not consistent with fact. The Roman Empire fell to pieces because it had no commercial basis. The French Empire collapsed because it was supported not by trade, but by militarism. All the empires of the past that have vanished like the baseless fabric of a vision were founded upon conquest. But the British Empire survives, and will survive, because it is founded upon commerce and is sustained by humanity.

I read in this review some time ago an article by Mr. Charles A. Conant, in the course of which he said:

> "Whether trade invariably follows the flag or not, the real question of the benefits of Australia, India, Canada, and Egypt to Great Britain, and of Algeria, Tunis, and Madagascar to France, relates to the fields which have been and will be opened there for the profitable investment of capital, and not merely to the quantity of finished goods laid down annually in the export trade. The development of a new country by means of railways, roads, and docks, is the forerunner of higher civilization, better wages, enlarged wants, and increased consumption. The benefits of this large market for goods usually fall to the country which provides the capital for the primary development, especially if it is that country also which, by its political control, affords the guarantees of security and order."[1]

Trade *does* follow the flag, if not always in the sense generally intended by the expression. The flag is a sort of national endorsement — the banker's guarantee that gives confidence, and encourages investment. Capital flows to British colonies, British dependencies, and British protectorates, just because the British flag flies there as a symbol of freedom, of truth, and of justice — as a guarantee that life and property are safe, and that the rights of all men, whether rich or poor, will be respected and conserved. Trade does follow the flag, because the flag means confidence, and confidence is the basis of commerce.

BENJAMIN TAYLOR.

[1] "The Struggle for Commercial Empire." THE FORUM, for June, 1899.

ENGLAND, PORTUGAL, AND THE SOUTH AFRICAN REPUBLICS.

FROM a moral point of view the twentieth century has begun in a very sad way. In South Africa a spectacle is being shown which is a disgrace to Christianity. A cruel war is being waged in which two small peaceful, religious, Protestant Republics are being destroyed with fire and sword by mighty Protestant England, who has always thought herself at the summit of civilization. A great many enlightened Englishmen already agree with us in thinking not only that this war, provoked by the triumvirate, Cecil Rhodes, Milner, and Chamberlain, might have been avoided by more ability and greater knowledge of the conditions of the case, but also that it ought to have been avoided.

Many years ago Trollope acknowledged, in his work on South Africa, that the way in which the English treated the Transvaalers was unjustifiable. Froude openly confesses in his "Diary" that the seizure of the diamond fields by the English was a great wrong, in which the British Government was shamefully imposed upon by a gang of exploiters. Yet Great Britain still continues to choose the path of injustice. Driven on by fortune-hunters, her aim is now the gold mines. All else is but a pretext, a means to an end. Gold and imperialism hold sway. The proclamation given out by President Steyn and by General de Wet on January 14, 1901, shows in what a cruel way this war is carried on.

This document declares that neither the customs of civilized warfare nor the articles of the Geneva Convention have been observed by the English. It cites the seizure of hospital ambulances, the capture of doctors, the deportation of non-combatants, the intentional pillage and destruction of the Boers' private property, the employment of Kaffirs in the war, and the wrongs done to women and to children. The official figures published by the British confirm the fact that the war is waged in a ruthless manner. This is shown not only by the British official "Return of Buildings Burned," but also by the official reports from the camps where the captive wives and children of the Boers are herded together like cattle. According to these returns, from April 15 to May

15, 1901, out of 3,125 women and children thus confined there were 80 deaths, being at the rate of 435 per thousand a year. In England the average mortality is at the rate of 22 per thousand a year.

Some of the proclamations given over the signatures of British commanding officers constitute a reversion to the practices of the seventeenth century. Among them may be mentioned the proclamations of Lord Roberts on June 16, 1900, and the instructions of Lord Kitchener, dated October 15, 1900. Against these methods General Louis Botha, Commander in Chief of the Boer forces, entered a solemn protest in a letter to Lord Roberts on September 6, 1900. He said:

> "It is known to me that barbarous actions of this kind have been committed by the troops under your command, and not only near the railway but also in places far removed from railways. Wheresoever your troops move, not only are houses burned down or blown up by dynamite, but defenceless women and children are ejected, and deprived of food and shelter, and all this without any just cause for such proceedings."

Bearing all these things in mind, it is sad to find that this Goliath is not content with sending all his own military forces to crush this small nation of heroes, but he must needs implore other nations to help him. England has not only endeavored to secure the good-will of Germany by flattering the Emperor and by giving the Crown Prince a riband, but she has even found it necessary to secure the aid of Portugal, a neutral state whose possessions border on the Transvaal.

It is worth while to examine the relations existing between the Governments of Great Britain and Portugal. Under pressure from England, Portugal allowed the British forces, in March, 1900, to use the port of Beira, in Portuguese territory, in order to reach the northern part of the Transvaal. To grant such permission was not in accordance with the duty of a neutral state, for a neutral should scrupulously abstain from giving any help whatever to either of the belligerents, and should never allow her territory to be made a base for warlike operations. But the British Government insisted upon this concession; claiming that this right of way had been given it by a certain treaty. In fact, this treaty stipulation referred to quite different circumstances, namely, military expeditions against natives, and had no connection with the question at issue. The Portuguese Government yielded.

It must be acknowledged that, except in this instance, Portugal held closely to the duties of a neutral during the early part of the war. This neutral attitude caused great annoyance to the English authorities, as goods and supplies not contraband of war continued to pass through Lourenço Marquez to the Transvaal. England already controlled the

ports of Cape Town, Durban, and Port Elizabeth. Wishing to isolate her adversaries, she did her utmost to induce Portugal to forbid the transportation through her territories even of those goods which are not prohibited by the law of nations. England was unwilling to bind herself to any list of forbidden goods, and contraband, according to British ideas, became a very comprehensive expression which, finally, was made to include everything — clothes for men, women, or children, ordinary food, etc.

At Lourenço Marquez there lived a man, able, energetic, and zealous, who greatly disapproved of this arbitrary behavior of the British. This was Mr. Pott, consul of the Netherlands and also consul-general of the two South African Republics at the Portuguese port of Lourenço Marquez. He succeeded in securing the transportation of all kinds of innocent goods which would never have reached their destination without his aid. He thus caused great annoyance to the British. As soon as the Republics were declared "annexed" — although such a declaration was of no value, seeing that it was issued by a merely temporary occupant of the country, and that it was followed not by peaceful rule and authority, but by continued warfare — Great Britain succeeded in persuading Portugal to withdraw from Mr. Pott his *exequatur* as consul-general of the Republics. Accordingly, that office ceased to exist, but Mr. Pott still remained consul for the Netherlands.

On November 17, 1900, the Dutch Minister for Foreign Affairs, Mr. de Beaufort, was informed by the Dutch Minister resident at Lisbon that the Portuguese Government wished also to withdraw from Mr. Pott his *exequatur* as consul of the Netherlands. However, before proceeding to such an extreme measure, Portugal suggested that Mr. Pott should be recalled by his own Government. The complaint made against him was in connection with the importation of certain heliographic instruments labelled as photographic apparatus. The Dutch Ministry had heard nothing of this affair except through newspaper reports. There had been no official report or complaint in regard to it. Afterward Mr. Pott declared that he had had nothing whatever to do, as consul, with this business. In reply to the complaints of Portugal, Mr. de Beaufort said that as this incident had occurred so long before, and as Portugal had not called attention to it at the time, he thought it best to have the affair accurately examined before deciding upon a course of action; and that, therefore, there could be no question of recalling Mr. Pott until the matter had been investigated. The Dutch Minister at Lisbon was also instructed to cable to Mr. Pott for information in regard to the affair.

At this juncture Mr. Pott requested leave of absence on account of his health; and the Dutch Government proposed to Portugal that the affair should be held in suspense pending Mr. Pott's return to Holland, when the matter could be thoroughly investigated.

At the beginning of December the Portuguese Government, apparently urged on by some mighty influence, insisted upon the immediate withdrawal of Mr. Pott's *exequatur*. It could not wait more than a few days. Why not? Was there *periculum in mora?* Did England long so urgently that this troublesome Pott should be removed from Lourenço Marquez? We are not sure about this. The Dutch Government answered that a revocation of the *exequatur* at that moment would appear not to be in accordance with those friendly relations which had always existed between Portugal and the Netherlands. Notwithstanding this protest Portugal withdrew the *exequatur*, whereupon the Dutch Minister at Lisbon was recalled, and the Portuguese Government recalled its Minister from the Hague. The incident was concluded in February, 1901, when the Count of Celir, Minister of the King of Portugal at the Court of the Hague, returned to Holland to present to the Queen the congratulations of his royal master upon the occasion of Her Majesty's wedding. Portugal having taken this first step toward the renewal of friendly relations, the Jonkheer van Weede, Minister of the Queen of Holland at the Court of Lisbon, was instructed to resume his post in Portugal.

What was the real cause of all this? Although Great Britain had proclaimed the annexation of the Republics, she was far from being mistress of the country. She saw more and more clearly the great difficulties which would have to be overcome. Mighty England had to find allies, especially an ally who could control Lourenço Marquez, in order to suppress those much-despised Boers. So this Anglo-Portuguese alliance was concluded—it is not yet known at what price. England, delighted at this achievement, and anxious to please her new friend, announced that on December 5, 1900, a great squadron should pay Lisbon a visit of courtesy, which should at the same time make known to all the world that Portugal could reckon in future on the support of the mightiest navy of the globe. The Portuguese Ministry, urged on, according to some, by the English and their sympathizers, held a meeting on December 4, and resolved to withdraw from Mr. Pott his *exequatur* as consul of the Netherlands. The next day Jonkheer van Weede left Lisbon by order of his Government. The "Seculo," a newspaper which published its version of the incident on that very morning, was awkward enough to acknowledge that all this had been done at the instigation of England.

But to remove the bad impression which this article had made in all circles, the "Novidades" — an organ inspired by the Government — endeavored, in its evening edition, to diminish the importance of the incident, and to remove the impression as to British influence.

That same day an English squadron anchored in the roads of Lisbon. After official visits had been exchanged, the King and his Ministers went aboard the *Majestic*, on which Admiral Rawson had hoisted his flag. Even Queen Amélie did the same, welcoming the other vessels by Marconi telegrams. One festivity followed another. At a banquet in honor of the English, given at the palace on December 6, the King, in proposing the health of Queen Victoria, said that for centuries the relations between England and Portugal had been most intimate, and that he hoped the inviolable ties which bound the small but brave nation to its great ally would in future be the more strengthened. The word "ally" was then for the first time pronounced officially. The existence of such an alliance had previously been suspected; now it was declared openly. In a cablegram which the King sent to Queen Victoria that evening after dinner, he said that he was exceedingly pleased with the firm alliance which united Portugal and England.

The strangest thing of all is the short memory of the King of Portugal. Had he quite forgotten the humiliations which these so-called friends had for centuries inflicted upon his people? If one must *faire bonne mine à mauvais jeu*, at least one need not fall into exaggerations. Dignity should not be forgotten. It is worth while to study a few historical facts, which are of such importance that they should be remembered by those who have the honor to govern a proud people.

One of these facts is connected with the year 1759. Since the Treaty of Methuen, Portugal had been kept in subjection by England. France and Great Britain were at war. A small French squadron under De la Clue had bravely fought for a whole day against a superior British force under Admiral Boscawen. To escape pursuit De la Clue ran his vessels aground upon the neutral coast of Portugal, between Sagres and Lagos. But the British Admiral cared little about the laws of nations, or about the laws of neutrality. With his sixteen vessels he attacked the French squadron; and, in spite of the fire from the Portuguese forts, he captured two French ships and burnt the rest. This was a distinct insult to Portugal, which was then, as it is now, a small, weak, and impoverished state. Only four years before it had been overwhelmed by a great calamity — the earthquake which destroyed Lisbon and several other towns. But at that period the King of Portugal had for Prime Minister a superior

and eminent man, the Marquess of Pombal, whom the people called *o gran marquez* (the great marquess). He could not tolerate such an insult to the proud people which he governed in the King's name. He protested vigorously, and wrote as follows to the British Government:

"I know that your Cabinet has assumed dominion over ours, but I also know that it is time this should cease. My predecessors may have been weak enough to grant you everything you wanted, but I shall never grant you anything but what I owe you. This is my last word; take your measures in accordance with it.

"I bid your Excellency not to remind me of the indulgence which my Government has shown toward yours. It is such as no kingdom ever showed toward another. It is only just that your ascendency should cease, and that we should show to Europe that we have shaken off the yoke of a foreign domination. We cannot show this more plainly than by requiring from your Government a satisfaction which you have no right to refuse. France would consider us impotent if we showed ourselves unable to demand satisfaction for the offence you have committed in burning vessels upon our very coasts. The satisfaction which I ask is in accordance with the law of nations. It happens every day that, through zeal or through want of consideration, officers of the navy or army do what they ought not to do. It is the duty of their Government to punish them, and to give satisfaction to the state which they have offended."

This language impressed the English Court. Lord Knowles was sent as Ambassador Extraordinary to the King of Portugal to apologize for the violation of territory, and to add the assurance that the British officers had received orders to act with more circumspection in the future. But nothing was done beyond this. Although the two French vessels, the *Téméraire* and *Modeste*, had been unjustly seized by the British, they were never restored.

Let us now take another instance of more recent date. Between 1885 and 1887 the Portuguese, masters of the coast of Mozambique, had succeeded without the aid of a single rifle-bullet in gaining the submission of the native chiefs of Zambesia, in the valleys of the Panyame, the Sanyati, and the Umfuli, as well as of the chiefs of Mashona and of the neighborhood of Nyassa Lake. It is unnecessary to say that England did not like this, as she intended to make herself mistress of these regions. On August 13, 1887, the Court of St. James announced its intentions to the Portuguese Government, and declared that it did not acknowledge Portugal's claims to Mashonaland and Nyassa. The Cabinet of Lisbon replied that these countries had been at all times dependencies of the Crown of Portugal, that the Portuguese Government had formerly kept troops and maintained fortresses there, and that, if effective occupation had ceased temporarily, the native chiefs had never ceased to acknowledge the suzerainty of Portugal.

Without waiting for further discussion England sent troops to the disputed regions, under Mr. Selous and Mr. Colquhoun, who manœuvred in such a way as to win over Lobengula, King of the Matabeles and so-called suzerain of Mashona. He accepted the protectorate of the British and gave them the monopoly of nine concessions in his dominions. Portugal protested vigorously, but England did not mind this in the least. She continued on her way, and on October 29, 1889, she granted to the British South African Company all rights over the country north of Bechuanaland, that is to say, over Khama's country, Matabeleland, and Mashonaland. Cecil Rhodes, the director of this company, immediately instructed Mr. Selous to occupy these annexed territories by military forces.

All these proceedings constituted a most exasperating affront to Portugal from her pretended friend, but she endeavored to preserve her dignity. On November 9, 1889, the Portuguese Government published in the official newspaper of Lisbon a decree organizing the administration of Mozambique, and constituting a new province, called Zumbo, which included Mashonaland and Nyassa.

England laughed in her sleeve. The British Cabinet informed the Portuguese Ministry, on November 21, that it would not pay any heed to the protest of Portugal. As usual, the imperialistic press, headed by the "Times," raised a storm of invective against these poor Portuguese, who had dared to place themselves across the path which England, or rather Mr. Rhodes' Chartered Company, had reserved for its own occupation. While diplomatic negotiations were becoming more and more entangled, Major Serpa-Pinto, who, at the head of a large body of Portuguese troops, had been operating in Middle Zambesi and in the valley of the Shiré for more than a year, received notice, in November, 1889, from a British consul named Johnston, that England had extended her protectorate to the region which his (Major Serpa-Pinto's) troops then occupied. The Portuguese commander, thinking there could be no foundation for this claim, continued his advance; and having been told that a rebellious tribe had attacked a steamer of the English Lake Company on the Shiré, he directed his way toward this tribe to chastise them. Strong in his right and in his duty Serpa-Pinto attacked the Makololos, and scattered them. The Portuguese claim that these bands of savages were armed with English guns, were provided with English gunpowder, and bore English flags, some of which were picked up on the field of battle.

At the news of this Portuguese victory over the savages the English press committed great excesses. The newspapers declared that Portugal

had excommunicated herself from the society of nations; that she was a nation of deceivers and of pirates; that an end should be put to her existence; that England had been generous and forbearing too long, and should not become the dupe of Portugal, etc., etc. This was the same refrain which they sang later when Major Marchand of France took the liberty of occupying Fashoda before John Bull. The Cabinet of Lisbon offered, as did the South African Republic a few years ago, to submit the matter to arbitration. England haughtily refused, considering herself the sole arbitrator in everything.

On January 12, 1900, Lord Salisbury sent the Portuguese Government a most humiliating ultimatum; dictating word for word the order which he required the Portuguese Government to issue. He wrote:

"The British Government desires and insists that the following instructions should be sent at once by cable to the Governor of Mozambique: Recall immediately all Portuguese troops at present on the Shiré, as well as those in the country of the Makololos and of the Mashonas. The British Government is of the opinion that without this action the assurances given by the Government of Portugal are insufficient. Mr. Petre [the British Minister at Lisbon] will find himself obliged, according to his instructions, to leave Lisbon immediately, with all the members of the Legation, unless he receives a satisfactory answer this afternoon."

What a stinging blow for a proud people — a people whose intrepid sailor sons, such as Alphonso d'Albuquerque and Vasco da Gama, had once discovered and conquered half the world. What was Portugal to do? It was "might against right," the iron pot against the earthen pot. There was nothing left for her but to submit and obey. That same day Mr. Petre received the following reply from the Portuguese Minister of Foreign Affairs:

"Foreseeing the danger of a rupture with Great Britain and the consequences incident thereto, the Government of Portugal resigns itself to the conditions formulated in the last note of the British Government. While reserving the rights of the Portuguese Crown in the above-mentioned territories of Africa, as well as the right under article 12 of the Convention of Berlin, to have recourse to arbitration for the solution of differences, the Government of the King has despatched to the Governor of Mozambique the orders demanded by Great Britain."[1]

In Portugal this insult provoked a violent emotion which almost developed into a revolution. A crowd gathered in front of the British Legation, tore down the escutcheon, and dragged the flag in the mud. The effigy of Serpa-Pinto was crowned with flowers and carried in triumph through the streets of Lisbon. A public subscription was opened to buy or build war-vessels, and within a couple of days a large sum was sub-

[1] The British ultimatum and the Portuguese reply are both taken from a French translation.

scribed. At first Parliament refused to ratify what it called the capitulation of the Government, and the Ministry was overthrown. The King himself sent back to Queen Victoria the insignia of the Bath and of the Garter.

Enough of this! Are these the friendly relations in which the King of Portugal takes such pride? Or is the King's memory so short?

The English press, with its usual facility for inventing things which have not happened, reported that the Boers had invaded Portuguese territory and destroyed the railway. This was only a *ballon d'essai* to find out whether the Portuguese Government and people could be induced to meddle in the war by giving England the military assistance which she needed. But the Portuguese did not bite at the apple, and the English Jingo papers were obliged to confess that the attack had not taken place on Portuguese territory, but only near it.

Another effort to keep the favor and help of Portugal was made after Queen Victoria's funeral. The King of Portugal was invited by his ally and friend to remain in England a long time, and received the high compliment of an honorary colonelcy of a British regiment.

In the "Fortnightly Review" for June, 1901, Mr. E. B. Iwan-Müller says:

"For many years to come the Transvaal will necessarily be the chief source of the wealth of the Dominion. The Transvaal, however, is an *enclave*. Of the three lines of communication with the sea, the most direct lies through Portuguese territory to Delagoa Bay, which sooner or later must come under the sole and immediate sovereignty of Great Britain."

Must come? By right or by might? Why ask the question? We live in the twentieth century. By might, of course — the only English right.

DEN BEER POORTUGAEL.

THE IDEAL SCHOOL AS BASED ON CHILD STUDY.

I SHALL try in this paper to break away from all current practices, traditions, methods, and philosophies, for a brief moment, and ask what education would be if based solely upon a fresh and comprehensive view of the nature and needs of childhood. Hitherto the data for such a construction of the ideal school have been insufficient, and soon they will be too manifold for any one mind to make the attempt; so the moment is opportune. What follows is based almost solely, point by point, upon the study of the stages of child development, and might, perhaps, without presumption be called a first attempt to formulate a practical programme of this great movement. In my limited space I can do little more than barely state the conclusions that affect the practical work of teachers.

The school I shall describe exists nowhere, but its methods, unless I err, are valid everywhere. Although many of its features exist already, and could be pieced together in a mosaic from many lands and ages, it is essentially the school invisible, not made with hands. But, as there is nothing so practical as the truly ideal, although my school to-day exists nowhere, it might be organized anywhere to-morrow; and I hope that the most and the least conservative will agree that it is the true goal of all endeavor, and will not differ except as to whether it may be realized at once or only at the end of a long period of labor. I confess that something like this has from the first animated all my own feeble educational endeavors, and that without it I should be without hope and without goal in the world of pedagogy.

Beginning with the deep philosophy often embedded in words, "school," or "schole," means leisure, exemption from work, the perpetuation of the primeval paradise created before the struggle for existence began. It stands for the prolongation of human infancy, and the no whit less important prolongation of adolescence. It is sacred to health, growth, and heredity, a pound of which is worth a ton of instruction. The guardians of the young should strive first of all to keep out of nature's way, and to prevent harm, and should merit the proud title of de-

fenders of the happiness and rights of children. They should feel profoundly that childhood, as it comes fresh from the hand of God, is not corrupt, but illustrates the survival of the most consummate thing in the world; they should be convinced that there is nothing else so worthy of love, reverence, and service as the body and soul of the growing child.

Practically, this means that every invasion of this leisure, the provision of a right measure of which is our first duty to youth, has a certain presumption against it, and must justify itself by conclusive reasons. Before we let the pedagogue loose upon childhood, not only must each topic in his curriculum give an account of itself, but his inroads must be justified in the case of each child. We must overcome the fetichism of the alphabet, of the multiplication table, of grammars, of scales, and of bibliolatry, and must reflect that but a few generations ago the ancestors of all of us were illiterate; that the invention of Cadmus seemed the sowing of veritable dragon's teeth in the brain; that Charlemagne and many other great men of the world could not read or write; that scholars have argued that Cornelia, Ophelia, Beatrice, and even the blessed mother of our Lord knew nothing of letters. The knights, the élite leaders of the Middle Ages, deemed writing a mere clerk's trick beneath the attention of all those who scorned to muddle their wits with others' ideas, feeling that their own were good enough for them.

Nay more: there are many who ought not to be educated, and who would be better in mind, body, and morals if they knew no school. What shall it profit a child to gain the world of knowledge and lose his own health? Cramming and over-schooling have impaired many a feeble mind, for which, as the proverb says, nothing is so dangerous as ideas too large for it. We are coming to understand the vanity of mere scholarship and erudition, and to know that even ignorance may be a wholesome poultice for weakly souls; while scribes, sophists, scholastics, and pedants suggest how much of the learning of the past is now seen to be vanity, and how incompetent pedagogues have been as guardians of the sacred things of culture. Thus, while I would abate no whit from the praise of learning and education for all who are fit for them, I would bring discrimination down to the very basis of our educational pyramid.

I. The kindergarten age is from two or three to six or seven. Here, before the ideal school can be inaugurated, we need some work of rescue from the symbolists. Now the body needs most attention, and the soul least. The child needs more mother, and less teacher; more of the educated nurse, and less of the metaphysician. We must largely eliminate, and partly reconstruct, the mother-plays, while transforming and vastly

enlarging the repertory of the gifts and occupations. We must develop the ideal nursery, playgrounds, and rooms, where light, air, and water are at their best. The influences of the new hygiene have been felt least here, where they are needed most. The neglect of these basal principles suggests that we have still among us those whose practice implies a belief that any old place is good enough to hatch out beautiful souls, provided only Froebelian orthodoxy of doctrine and method is steadfastly maintained. In place of a magic mongering with them, the cubes, spheres, cylinder, and also the top, soap-bubble, doll, dances, marches, circus, and scores of other free plays and games; and in place of two or three fish, insects, animals, plants, several score must be provided, and a museum and *catalogue raisonné* of toys must be at hand. Eating bread, milk, fruit, with some simple table manners, and using paper napkins, sometimes do wonders for these human larvæ. Feeding brightens the mind and saves the disposition; a full stomach opens the mouth, and good courses of lessons could be derived from the viands themselves.

The kindergarten should fill more of the day, and should strive to kill time. In the Berlin Institute children sleep at noon in a darkened room, with music, crackers, or even bottles, and thus resist man's enemy, fatigue, and restore paradise for themselves. Part of the cult here should be idleness and the intermediate state of reverie. We should have a good excuse to break into these, and at this age children should be carefully shielded from all suspicion of any symbolic sense. Thus in play and in play only, life is made to seem real. Imitation should have a far larger scope. Children should hear far more English and better, and in the later years the ear should be trained for French or German. Color should never be taught as such. The children of the rich, generally prematurely individualized or over-individualized, especially when they are only children, must be disciplined and subordinated; while the children of the poor, usually under-individualized, should be indulged. We should lose no syllable of the precious positive philosophy of Froebel, the deepest of all modern educational thinkers; but we must profoundly reconstruct every practical expression that he attempted of his ideas, and must strive to induce at least a few college-trained men and women to turn their attention to the kindergarten, thus making the training schools feel, what they have hitherto known so little of, the real spirit and influence of modern science. Teachers should study every child, not necessarily by any of the current technical methods. They should learn far more than they can teach, and in place of the shallow mannikin child of books they should see, know, and love only the real thing. After this metempsy-

chosis, the kindergarten should be, and should become, an integral part of every school system.

II. The age of about seven or eight is a transition period of the greatest interest for science. Then most children have less chewing surface by three or four teeth; there is a year or more of increased danger to the heart; the breath is shorter and fatigue easier; lassitude, nervousness, visual disorders, and cough are somewhat more imminent; and the blood is more often impoverished. The brain has practically finished for life its growth in weight and size; and all work and strain must be reduced. Some important corner in its time of development, not yet fully understood, is turned.

III. At eight or nine there begins a new period, which, for nearly four years, to the dawn of puberty, constitutes a unique stage of life, marked off by many important differences from the period which precedes and that which follows it. During these years there is a decreased rate of growth, so that the body relatively rests; but there is a striking increase of vitality, activity, and power to resist disease. Fatigue, too, is now best resisted, and it is amazing to see how much can be endured. The average child now plays more games and has more daily activity, in proportion to size and weight, than at any other stage. It would seem, as I have proposed elsewhere with ground for the theory, as though these four years represented, on the recapitulation theory, a long period in some remote age, well above the simian, but mainly before the historic, period, when our early forebears were well adjusted to their environment. Before a higher and much more modern story was added to human nature the young in warm climates, where most human traits were evolved, became independent of their parents, and broke away to subsist for themselves at an early age. In this age, which we will call the juvenile, the individual boy to-day is a precious key for the reconstruction of a stage in the history of the race otherwise very obscure.

However this may be, child nature suggests very plainly that this period should be mainly devoted to drill, habituation, and mechanism. The age of reason is only dawning, and is not yet much in order; but discipline should be the watchword here. Writing, and even reading, for instance, should be neglected in our system before eight, and previous school work should focus on stories, the study of nature, and education by play and other activities. Now writing and reading should be first taught with stress. Their nascent period is now beginning. If we teach them before, we are apt to make the average child a bad writer for life by precocious over-emphasis on the finer muscles. Modern studies show that

the zigzag of the eye back and forth along the printed line is as dangerous as is the too early wigwag of the pen. At best the strain laid upon these tiny muscles is dangerous. Too early drill in read-writing is also enormously wasteful, because intensive effort gives facility now in an amazingly short time. Now first the smaller muscles in the average child, so important for mind and will training, can bear hard work and much strain. Accuracy, which when out of its season is fraught with so many dangers for mind and body, is now in order.

Verbal memory is now at its very best, and should be trained far more than it is. We are now educating the automatic bases of both mind and morals, and habits are never so easily formed or made stable. Manual training and games should be extremely diverse, manifold, and thorough. It is the time to break in the human colt, which is by nature in some sense the wildest of all wild animals. If the piano or any other musical instrument is to be learned, this is the time for drill, especially on scales and exercises. An instrumentalist's technique is rarely good if its foundations are not laid in this age. Names, even technical ones, come now. Drawing, too, should now come into prominence, beginning in its large and perfectly free form before writing, and only near the end of the period becoming severely methodic and accurate. Art training should not result in intimidation, but first everything should be drawn — battles, fires, shipwrecks, and railroad accidents, with plenty of human figures and action, and no angles, straight lines, or regular curves, which have come very late in the history of the race. This would make drawing, as it should be, a real expression of the child's soul, and the child would copy what he, and not what the adult, sees.

The mother tongue will be the vehicle of nearly all the work of this period; but it will be on the short circuit from ear to mouth, which existed for unknown eons before writing or reading, and not chiefly on the long circuit and biologically very recent brain-path from eye to hand. Teachers praise written work in home and at school — compositions, essays, class work; but all these appeal to new and undeveloped powers of nerve and muscle. It is because we try to establish good English upon these foundations, so precarious at this stage, that we have so much and so just complaint of bad English. We ruin both handwriting and idiomatic speech by precocity. The child should live in a world of sonorous speech. He should hear and talk for hours each day; and then he would lay foundations for terse and correct English, and would keep read-writing, as it should forever be, subordinate to hearing and speaking. He would write as he speaks, and we should escape the abomination of

bookish talk. At this stage written work should be required far less than at present.

Further, to secure these ends, we must first lay less stress upon correct spelling — which is, after all, of far less importance than we think — and also upon correct, adult Addisonian syntax. Good grammar is too much to expect yet. We must strive first for utterance and expression, which may be homely if only vigorous and adequate. Hence, much that we call slang has its place, and is really a revival of English in its most formative stage. The prim proprieties we idolize are not yet, but it is the hour of delight in cogency of expression. We do not yet know what slang to teach or how to teach it, but we ought to give the best of it an important place. The boy is not totally depraved because he loves the speech of Chimmie Fadden, of Mr. Ade, or of "The Charwoman," because such language is fresh from the mint where all words were made. Our end is the cultivation of expression, which must bring out clearly and strongly what is in the boy's soul. This expression must be of a kind at least no less effective for other boys than for us. A training that gives the power of writing or even talking upon any subject or upon none in particular is bad and vicious. Children have no right to write unless it is upon some subject that they know and upon which they feel strongly. Theme and composition should be strictly confined to the fields of interest, and then expression will find or make a vent for itself. Moreover, we should not teach language, as such, or apart from objects, acts, and concrete reality-truth. We must burn most of our language books.

At this stage, arithmetic, so greatly overdone in American schools, should be mechanized with plenty of mental exercises, and later with rules and processes for written work, with only little attempt at explanation. The elements of geometry, especially on the constructive side, and the metric system should come early, and the rudiments of algebra later. This is the stage, too, for beginning one or two foreign languages. These should always first be taught by ear and mouth. The child has a natural desire to express himself in many other vocal forms than the vernacular, for it is the age when all kinds of gibberish, dog Latin, and inventive words culminate. It represents the stage when human speech evolved fastest. If these languages are taught earlier, they jeopardize idiomatic English; if later, they are never pronounced or used with precision, and are not immediate vehicles of thought. Psychology has shown that speech is greatly reinforced by appeals to the eye, not in the form of the written or printed word, but through pictures, and that even color intensifies the linguistic effect. Many a

French or German word that could not otherwise be recalled is reproduced or first taught more permanently if the object or picture is shown or the appropriate action is performed at the same instant. Books should be by no means discarded, but the chief stress should be laid on the oral work and thought. The object should be brought into immediate action without the intervention of the English word.

As to the dead languages, if they are to be taught, Latin should be begun not later than ten or eleven, and Greek never later than twelve or thirteen. Here both object and method are very different. These languages are taught through English, and the eye-hand circuit should have much more prominence. Word matching and translation are the goal. The chief reason why the German boy of fifteen or sixteen in *Unter Secunda* does so easily here what seems to us prodigious is because he is taught to study; and the teacher's chief business in class is not to hear recitations, but to study with the boys. One of the best of these teachers told me that the boy should never see a dictionary or even a vocabulary, but the teacher must be a "pony." The pupil should never be brought face to face with an unknown sentence, but everything must be carefully translated for him; he must note all the unknown words from the teacher's lips and all the special grammatical points, so that home study and the first part of the next lesson will be merely repetitions of what the teacher had told and done.

The modern school geography should be reduced to about one-fourth or even one-eighth of its present volume. It is too often a mosaic of geology, topography, physical geography, botany, zoology, anthropology, meteorology, and astronomy. The facts of each of these sciences, however, are not taught in their natural or logical order; but the associations are mainly those of place and contiguity, not of similarity and cause. Even in these days of correlation of studies the facts of these sciences are separated from their logical connection with each other; and by the use of a more fortuitous local association the reason is injured. Our geographies do not respect the unity of the child's mind. Their facts are connected neither with each other nor with the nascent stages of growth. The interest in primitive man and animals culminates from nine to ten; that in trade and governmental parts of geography comes from sixteen to twenty. The geographies of the last two or three years have mitigated, but by no means healed, these evils; and, as we speak of Turkey as the sick man of Europe, we may still speak of geography as the sick subject of our curriculum.

Instead of reverencing this relic of mediævalism, as its history shows

it to be, we should greatly reduce the time given to it, and should first teach *Heimatskunde;* make maps more abundant, but more incidental to every topic, especially history; develop and teach elementary and illustrated anthropology and zoology, broadening to elementary astronomy, geology, meteorology, and botany, taught by and for themselves to bring out their disciplinary value, and so on in ways I have here no space to dwell upon. When we have reduced the enormous time now given to geography, the elements of each of these sciences will be taught in primers — some of which are now begun before the end of this period — which will continue the nature work of the period before seven or eight.

The hand is in a sense never so near the brain as now; knowledge never so strongly tends to become practical; muscular development never so conditions mental. Muscle training of every kind, from play up to manual work, must now begin. Instead of the Swedish or other curriculized and exactly finished objects made, we should have a curriculum of toys at first and of rude scientific apparatus later, where everything will focus more upon the ulterior use of the object than upon the process of making it. All these things will be chosen from the field of the child's interests.

Singing will be prominent in the ideal school at this age; but far more time will be given to rote singing than to singing from notes, especially at first. The chief aim will be not to develop the power to read music, important as the place of this is, but to educate the sentiments, and especially to attune them to love of home, nature, fatherland, and religion — the four chief themes of song in all ages, past and present. Music is the language of the feelings just as speech is of the intellect. It is as absurd to teach notes to children before they can sing well as it would be to teach them reading before they can speak. The object of musical education in the public school is to express and train the emotions, and, through these, the will and character, to preform joys and conduct, and not to make musicians.

Reason is still very undeveloped. The child's mind is at a stage when there is little in it that has not been brought in by way of sense. We must open wide the eye-gate and the ear-gate. "Show," "demonstrate," and "envisage" should be our watchwords, not "explain." We can easily make casuists and prigs, but we jeopardize thereby the ultimate vigor of reason. Hence we should explain very little. Even with respect to morals and conduct the chief duty of the child at this age is to obey. In most cases to try to explain brings self-consciousness and conceit.

This method is the resource of teachers and parents whose personality is deficient in authoritativeness. Obedience should still be a law, if not a passion. If it is lacking, this is due to imperfect character or perverted methods in adults.

In fine, this is the age for training, with plenty of space and time, however, for spontaneity and voluntary action. The good teacher is a true *pedotrieb*, or boy driver. He needs some method, but much more matter. He or she finds relatively little sentiment but much selfishness bound up in the hearts of children at this age. One of the chronic errors of too fond mothers and of modern teachers is to overestimate the capacities of children, especially boys, at this age for sympathy with adult feelings or interests. The world we live in is not theirs. We are "Olympians," and can enforce our will because we are stronger. We must be tolerated and respected, and must be treated with all the forms of respect and obedience that we require; but the interest of children at this age is almost exclusively in each other, and in each other's ways, not in adults. This breaks out suddenly, but just later.

Just before this period ends, boys and girls in the ideal school will be chiefly, though not exclusively, placed under the care of teachers of their own sex. At the close of this period the ideal child, ideally trained, will be first of all helpful and active in body and mind; will read and write well; will know a great deal about the different aspects of nature in his home environment; will not be bookish, but will already know a few dozen well-chosen books; will understand and read simple French and German; and will perhaps have had a good start in Latin and Greek. Some buds of specialization will have begun to bourgeon. This child will be able to play several dozen games; will know something of a number of industries; and will be able to make several dozen things that he is interested in. He will be respectful, though not particularly affectionate, and will take pleasure in obeying those he likes, and perhaps, more in disobeying those he dislikes. He will have attempted a number of organizations for teams, and will have formed a few societies, but all will have been transient. He will have some acquaintance with most of the story roots and literary monuments of the world, perhaps two or three score in number. He will sing, and will draw almost anything, not well, but intelligibly and without affectation.

Lastly, the ideal teacher at this age will be the captain of the child's soul; will be able to do some things with his or her body that the child cannot; will be able to answer most of the questions suggested by the field, the forest, the beach, the street, and their denizens; will suggest

plays and umpire games; will perhaps know a little of coaching, but will be a stern disciplinarian, genial withal, but rigorous and relentless in his exactions, and intolerant of all scamped work; will love occasional excursions and expeditions; will perhaps sing, play, and draw a little; will be able to do something expertly well; and, as perhaps the culminating quality, will have a repertory of the greatest stories the human race has ever told or heard.

The ideal story-teller will prefer twilight or evening, with at least the dim light that gives the imagination a chance over sense, perhaps with flickering flames to objectify his scenes. He will then weave the almost hypnotic charm of "Once upon a time." Thus he will repeat the tales of Ulysses, Orestes, Siegfried, Thor, King Arthur and his Knights, the wanderings of Æneas and Telemachus, perhaps some tales from one or other of the great ethnic Bibles, perhaps Dante, some of the soul-transforming myths of Plato — such as Atlantis, the cave, the two steeds — Hercules at the cross-roads, perhaps some legends from ancient India, Reynard the Fox, something from Grimm and Simrock. It is a grievous wrong to permit any child to satisfy the legal requirements of school attendance without some knowledge of these things. I believe in the ethical virtue of these things almost as I believe in the Bible, for they sink deep and transform. They are the Bible of childhood, and we must not withhold them. A story brings a vast body of related facts and persons to a sharp focus. This is what most modern methods of correlation fail to attain. Such stories discipline the heart and the attention at the same time, and implant a taste for good reading and a distaste for bad. Finally, the teacher should have good manners, a uniform disposition, much joy of life, and sympathy with just this age. Some persons are made to love children in this stage most of all; some, to love adolescents; the interest of most and their service to the young are almost always specialized; and none can be equally good teachers or parents for all ages.

IV. Adolescence is a term now applied to a pretty well-marked stage, beginning at about thirteen with girls and a year later with boys, and lasting about ten years, to the period of complete sexual maturity. It is subdivided into pubescence, the first two years; youth proper, from sixteen to twenty in boys and perhaps fifteen to nineteen in girls; and a finishing stage through the early twenties. The first stage is marked by a great increase in the rate of growth in both height and weight. It is a period of greater susceptibility to sickness for both sexes; but this vulnerability is due to the great changes, and the death rate is lower in the

early teens than at any other age. It is the time when there is the most rapid development of the heart and all the feelings and emotions. Fear, anger, love, pity, jealousy, emulation, ambition, and sympathy are either now born or springing into their most intense life. Now young people are interested in adults, and one of their strong passions is to be treated as if they were mature. They desire to know, do, and be all that becomes a man or woman. Childhood is ending, and plans for future vocations now spring into existence, and slowly grow definite and controlling.

There is often a new and exquisite sensitiveness to every breath of criticism, praise, or blame. All are anxious to know whether they are inferior or superior to others. There may be observed both a new diffidence and a new self-assertion. The largest percentage of criminals is found in the later teens, and at this time most conversions occur also. Both pleasure and pain are vastly intensified. Pugnacity becomes very strong, as does the instinct for showing off. The large muscles and then the small develop rapidly, but are at first unenduring and clumsy. The heart and arteries are suddenly enlarged, and the blood pressure is increased. Blushing is greatly developed. Nature puts body and soul on their mettle. Heredity chiefly and environment next determine whether the individual can cross this *pons* successfully; whether he can moult into maturity completely without loss or arrest. New friendships and new secrets are formed; the imagination blossoms; the soul is never so sensitive to all the aspects of nature; music, which may have been studied before, is now felt; the excelsior motive or the developmental push upward makes this the very best and richest season of life. New curiosities, amounting to intellectual hungers, are felt.

Thus again a few years or even months give us a new kind of being, which demands a new environment, new methods, and new matter. Instinct, now so much wiser than reason, feels this break of continuity. It is the age when the majority leave school forever and begin life for themselves. The apex of the runaway and truancy curve is here. It is the age of spring fever, when previous life seems dead, and the soul would moult it and be done with it. It is the most vulnerable and difficult of all periods after infancy, the severest test of parent, teacher, and pedagogical methods. It is the point where, in the sequential history of the race, education has begun in every indigenous race, and from which it widens up toward the university and down toward the kindergarten, just in proportion as civilization advances and the mass of culture material grows. What we shall do with the hobbledehoys, *Backfische*, larrikins, is the oldest problem of education, and one answer is

plain. We must first study them. This process has been begun, and has yielded a few results, some very clear and some still uncertain.

First of all, the drill and mechanism of the previous period must be gradually relaxed, and an appeal must be made to freedom and interest. Individuality must have a far longer tether. We must and can really teach nothing that does not appeal to interests deep enough to make it seem of almost supreme value in the world. We can no longer coerce and break, but must lead and inspire. To drill merely is now to arrest. Each individual must be studied and made a special problem, if his personality is to come to full maturity. Hence, there must be a wide range of elective study for those who continue at school. Boys can hereafter rarely do their best work under female teachers, however well equipped these may be mentally. They feel their manhood, and need the dominance of male influences.

In the ideal school system, the sexes will now, for a time at least, pretty much part company. They are beginning to differ in every cell and tissue, and girls for a time need some exemption from competition. They have more power than boys to draw upon their capital of physical energy and to take out of their system more than it can afford to lose, for the individuals of one generation can consume more than their share of vigor at the expense of posterity. In soul and body girls are more conservative; males vary, differentiate, and are more radical. Reproduction requires a far larger proportion of body and function in females. Now the leaders of the new education for girls recommend training them for self-support, assuming that if wifehood and motherhood come those who have received such a training can best take care of themselves. This assumption is radically wrong and vicious, and should be reversed. Every girl should be educated primarily to become a wife and mother, and, if this is done wisely and broadly, the small minority who remain single will with this training be best able to care for themselves.

A third conclusive and far-reaching principle is that at no stage of life is the power to appreciate and apprehend so very far ahead of the power to express. Hence we should let up on examinations; we should cast our bread upon the waters, knowing that it will be found after many days, because so sensitized is the soul now that nothing is lost. Mental and moral teaching and influences sink at once too deep to be reproduced in examinations of the present type without injury to both mind and will. There is nothing in the whole environment to which the adolescent nature does not keenly respond. Neither you nor I, however specialized our knowledge, know anything really worth knowing the sub-

stance of which cannot be taught now if we have pedagogical tact; but, if we wait for its reproduction in the pupil, we starve and retard his soul. Hence facts, ideas, laws, and principles should be in the very atmosphere, for they are now the ingenuous youth's native breath, his vital air. He is all insight and receptivity; he has just entered the stage of apprenticeship to life; he has awakened to it as at a second birth, and has found all things new and glorious.

Yet another change is well defined. Whereas previously the pupil could work with some skill and accuracy, now body and mind are both again so plastic and unformed that they are clumsy, and precision and finish cannot be bought except at too great a price. The teacher's cue is now to graft the soul all over with buds and scions, and not to try to gather a harvest. The mind has laid aside its power to finish and elaborate. It can rudely assimilate everything by turns, but nothing well. The fundamental system of the body, which consists of the large muscles and not the small, and which therefore makes coarse massive movements and not exact ones, has now its innings; and the fundamentals of the soul, which are instinct and intuition, and not pure intellect, are now in season. We must lay new and larger foundations.

But, more specifically, what do these changes involve in the ideal school of the future? The transition from the grammar to the high school in this country corresponds far better than the European system to the need of changed environment at the age of fourteen; and this constitutes a rare opportunity which has, however, been thrown away. Although education, as we have seen, begins here, and many races have no other than a brief training at the dawn of the ephebic period, by a strange irony of fate secondary education has more or less lapsed to a mere link. Its functions are partly those of preparation for college, and are partly shaped by the mere momentum of the lower grades. The high school has lost its independence, and of all stages and grades has least interest in the large problems of education, namely, what to teach and how, in order to develop the nascent periods during the teens and to save powers now new-born in most profusion, but sure to be atrophied or perverted if not studied with tact and federated with individual adaptation.

For all these problems as a class, high-school teachers care less than those of any other grade, if indeed they suspect their existence. For them adolescence is just a stage when children are so much farther along than in the grammar school, and know so much less than they must to enter college. For such teachers the task is simply to convert their pupils into freshmen, and they await with hope or fear the assignment of their stint

in the form of college requirements. They have abandoned all initiative; have renounced their birthright of interpreting, and ministering to, the needs of one stage of life; have had little professional training; have little interest in education in the large meaning of that term; and care little for work of the lower grades. Their motto almost seems to be *Non vitæ sed scholæ discimus.* The result is that boys, who insist more on their own individuality, leave the high school: in the country at large about sixty per cent of its pupils are now girls. Noble ideals are gone; the independent function of the secondary stage of education is almost abandoned; and the pupil and teacher devote themselves to a routine of tasks in an artificial programme imposed by the will of others, and fitting not for the world but for college. The pupils do not regard their work as set on a basis which gives it a value and a meaning in itself to which each day contributes. Nothing can be done then until the high school takes a stronger hold on the interests and affections of the pupil.

At the sessions of the representatives of New England high schools and colleges, all the discussions and interests centre more and more in the details of how to fit in this and that study, and whether a little more or less should be required or methods tinkered. College requirements, and suggestions how they may be best met, have ceased to be educational themes in any large sense. It is high time to reverse this relation. The college depends on the high school, and not *vice versa.* The latter should declare its independence, and proceed to solve its own problems in its own way; it should strive to fit for life those whose education stops here, and should bring the college to meet its own demands. It should ask again how best to feed the interests and capacities peculiar to this age; how to fill and develop mind, heart, will, and body, rather than how to distil a budget of prepared knowledge decreed by professors who know no more of the needs of this age than teachers of other grades. The current "link" theory and practice interfere, moreover, with the natural selective functions; favor uniformity and inflexibility; and ignore the needs of the majority of high-school pupils who go no farther.

Under this condition it is idle to study adolescence or to plan for it, because nothing worth while can be done; although the inverse relation I plead for would be vastly to the interests of the colleges, and would in a few years greatly increase their classes and the efficacy of the whole system. Few institutions of modern civilization so distrust human nature as does the modern, American high school, when under college domination. For lower grades the law of compulsory attendance is analogous to a high protective tariff, which removes the stimulus to bet-

ter methods of manufacture, and interferes with the law of competition which is the mainspring of evolution. The high school is no less effectively protected against the currents of new ideas, and is left to be a victim of tradition, routine, the iron law of mechanism. It takes the easiest way by working under the shelter and dictation of the college above and on the momentum of the grammar school below. This, I believe, accounts for the rapidly decreasing numbers as we go up the high-school classes; for the decreasing proportion of high-school boys who go to college; for the preponderance of girls in the high school; and for the educational apathy of the high-school teacher, who is prone to all the narrowness and affectation of the specialist, without his redeeming virtue of productiveness in research.

The teacher must teach more, and know more; he must be a living fountain, not a stagnant pool. He should not be a dealer in desiccated, second-hand knowledge, a mere giver-out and hearer of lessons. That is the chief and humiliating difference between our secondary teachers and those abroad, who are mostly Doctors of Philosophy, as they should be. If we could move many university professors to the college, many college professors to the high school, many high-school teachers to the grammar school, and some grammar-school teachers, with at least a sprinkling of college graduates, into the kindergarten, it would do much. In the German and French schools, the teacher is one who knows a great deal about his subject and is nearer to original sources; who tells the great truths of the sciences almost like stories; and who does not affect the airs and methods of the university professor. Very many secondary teachers are masters and authorities. Here, most of our university pedagogy is a mere device for so influencing high-school principals and teachers as to correlate curricula, in order to corral in students, and little interest is taken in the grammar grades, and none in the kindergarten.

I have spoken frankly, and have dealt only with general principles over a vast field, far too large to be adequately discussed here. I have carefully avoided all details, although I have fully worked them out on paper at great length, for each topic to the close of the high-school period or the age of nineteen, when physical growth is essentially completed. This material will soon appear in a volume. The chief petition in my daily prayer now is for a millionaire. With the means at hand, I have no shadow of doubt or fear but that in five years from the date of any adequate gift, we shall be able to invite all interested to a system of education, covering this ground, which will be a practical realization of much present prophecy, and which will commend itself even to the most

conservative defenders of things as they are and have been, because the best things established will be in it. But it will be essentially pedocentric rather than scholiocentric; it may be a little like the Reformation which insisted that the Sabbath, the Bible, and the Church were made for man and not he for them; it will fit both the practices and the results of modern science and psychological study; it will make religion and morals more effective; and, perhaps, above all, it will give individuality in the school its full rights as befits a republican form of government, and will contribute something to bring the race to the higher maturity of the superman that is to be, effectiveness in developing which is the highest and final test of art, science, religion, home, state, literature, and every human institution.

G. STANLEY HALL.

ROYAL VISITS TO CANADA: A HISTORICAL RETROSPECT.

THE present year, memorable in itself as the beginning of a new century, will be especially notable in Canadian history for the occurrence of two events, deeply interesting to the Canadian people as devoted subjects of the British Sovereign and citizens of the British Empire. In January there came the sad tidings of the death of the great Queen who had reigned for over sixty years, and had indelibly impressed her name and virtues on the hearts of her people throughout her wide imperial domains. Many memorials are being raised in Canada, as in other parts of the Empire, to commemorate her beneficent rule and her character as Queen, wife, and mother; but perhaps the most significant tribute the Canadians will pay to her memory will be given on the occasion of the visit of her grandson, this month and the next, on his return from the countries which owe allegiance to England in Australasia, Asia, and Africa. This tribute will be not a mere evanescent ebullition of loyalty, but a very significant illustration of that sincere sentiment of devotion to Crown and Empire which has been a distinctive feature of the Canadian provinces for more than a century, and has found its strongest expression during the reign of the Queen whom we so lately mourned, and whose grandson we are about to welcome with so many demonstrations of affection.

This visit of a royal prince, the heir-apparent to the throne, naturally recalls similar events in the past history of Canada. Though these visits have been but rare during more than a century, and, like those of angels, generally "short and bright," they yet form so many milestones from which we can measure the social, political, and material development of the provinces which now form the Dominion. We observe, as we look back, that these royal visitors came to our country at the beginning of new epochs in our history, when the conditions of the population were on the point of undergoing radical changes, destined to have most momentous influence on the national character, especially in the way of strengthening and perpetuating British institutions, and of giving the people larger opportunities of showing their capacity for work-

ing out the principles of representative and parliamentary government in that portion of North America still loyal to England.

When Prince William Henry, afterward William IV, first visited Halifax, in 1786, as commander of the frigate *Pegasus*, the Acadian and Canadian provinces were just in the formative stage of their development as dominions of the British King. Nova Scotia had been a possession of England since the Treaty of Utrecht, in 1713, and had enjoyed representative government since 1758. Canada had been formally ceded to England by the Treaty of Paris, in 1763, and her "new subjects," the French Canadians, received in 1774, in the passage of the Quebec Act, an evidence of the spirit of justice and kindness which their rulers were prepared to show them. This measure established a Legislative Council in which French Canadians were represented, and gave full protection to their language, religion, and civil law.

Then came to pass, at this critical period in the development of isolated, struggling provinces, a notable event which has had a most remarkable influence on their future as portions of the British Empire. During 1783 and 1784, there came to the shores of Nova Scotia, to the valley of the St. John, and to the banks of the St. Lawrence and the Niagara, upward of 40,000 men, women, and children who had retained their allegiance to the Crown and Empire during the sad days of the American Revolution. When these people arrived in the provinces still faithful to England, the total British population of British North America did not exceed 12,000 souls, of whom the greater number were in Nova Scotia. On the banks of the St. Lawrence there was a French population of nearly 100,000 persons, living chiefly between Quebec and Montreal. No British people were found west of Lake St. Louis, and what is now the rich and prosperous province of Ontario was an entire wilderness, except where loyal refugees had sought protection near the English fort at Niagara, or a few French settlers had made homes on the banks of the Detroit. Many of the British inhabitants of Canada and Nova Scotia, who had come originally from New England, were of doubtful loyalty to the Crown; and one district in the Acadian province, on account of its avowed sympathy with the revolutionists, was not allowed to send representatives to the Assembly.

The coming of many thousand people who had proved so clearly their attachment to Great Britain by their self-sacrifice was one of the happiest events, in a national sense, that could have occurred in the case of a country where the proportion of English-speaking colonists was until then so insignificant. This migration of people of proved loyalty de-

cided the future of the country that was left to England in North America. The independence of the Thirteen Colonies — the first step, according to some European statesmen, in the ruin of the British colonial empire — was actually the making of a new Dominion far overshadowing the old Dominion of the Virgin Queen.

The arrival of the bluff sailor prince naturally afforded these loyal subjects an opportunity to give expression once more to their feeling of devotion to a sovereign for whose sake they had suffered so deeply. He visited Halifax, then a small, ill-kept town of 4,000 or 5,000 people, and also the Loyalist city of Shelburne, on the western coast of the province. The latter was then the most populous place in British North America. It had been established in the hope of becoming a great commercial emporium — a hope shown to be most illusory in the course of a few years, when its people gradually disappeared and it dwindled to a mere village. The Prince also paid a visit to the valley of the St. Lawrence, where Montreal and Quebec had a population of probably 9,000 or 10,000 each. At this time the name of William Henry was given to the pretty, and now prosperous, town of Sorel, which is situated at the confluence of the Richelieu River with the St. Lawrence, and received its first designation from a captain of engineers who built a fort in 1665 for the protection of the French against the raids of the relentless Iroquois. William Henry as a king does not hold a high place in English history; but he had that ready, free manner which is characteristic of the English sailor, and made many friends wherever he went. While the Loyalists were ready to welcome him as a representative of the Crown for which they had fought and suffered, the leading men of the French Canadian race received him with the respect due to the prince of a nation which showed every desire to treat them generously.

In 1791, three years after the departure of the sailor prince from American waters, there came to Quebec, as commander of a royal regiment, Prince Edward, afterward Duke of Kent, father of Queen Victoria, and great-grandfather of the prince who is soon expected in the new Dominion. Canada was now on the eve of another great change in her political conditions. The Quebec Act had in many respects proved inadequate to the development of those districts, where a great body of Loyalists had settled beyond the confines of the French province, and were demanding political institutions more suited to their aspirations as British subjects accustomed to representative assemblies. Before the coming of the prince, the Parliament of Great Britain had

passed the Constitutional Act. This established two provinces — one known as Lower Canada, now Quebec, in which the French Canadians formed the vast majority, and the other known as Upper Canada, now Ontario, in which the United Empire Loyalists were supreme. Whether it was wise practically to isolate the English and French races in separate provinces, and to prevent the gradual absorption of all nationalities into one great English-speaking people, is a political problem on which there was, and always will be, a difference of opinion. Be that as it may, no doubt can exist as to the sincerity and honesty of purpose which influenced Pitt and other English statesmen in passing this important measure.

At this time the total population of the British-American provinces was probably 225,000 souls, of whom 100,000 were French Canadians. In the two Houses of the Legislature of Lower Canada there were representatives of the most distinguished families of the French régime, whilst the same bodies in New Brunswick and Upper Canada were composed almost exclusively of Loyalists of 1783 and 1784. The first Legislature of Lower Canada met in an old stone building, long known as the Bishop's Palace, in the ancient capital, full of memories of soldiers and sailors, explorers and missionaries; while that of the western province assembled in the humble village of Newark, on the banks of the Niagara, where the best accommodation was a rude frame building, or at times a large tent which had once belonged to the famous navigator, Captain Cook, and was then the property of Lieutenant-Governor Simcoe, who had taken a prominent part in the American war. At this period the trade of the provinces was very insignificant, and the public revenue was so small that the expenditures of government had to be largely met by the imperial treasury. The schools for the masses were wretched in the extreme, though adequate provision was made in French Canada for the education of priests and for the teaching of some liberal branches of learning.

The Duke remained in Quebec for three years, and won the respect and even affection of the people with whom he had most social intercourse. He entered into the various pleasures of the community with a genuine interest, and especially cultivated the friendship of the De Salaberrys, one of whom afterward became the hero of Chateauguay and the savior of French Canada in the war of 1812–15. The innate courtesy of the French race seems to have had a great attraction for him, and he neglected no opportunity of rebuking the jealousy and ill-feeling which were already beginning to show themselves between the French

majority and the small British official class. The members of this class were not always chosen with discretion by the imperial government, and continually acted as if they alone had a right to rule "in a conquered country." "I urge you," he said on one occasion, "to unanimity and concord. Let me hear no more of the odious distinctions of French and English. You are all His Britannic Majesty's beloved subjects." Much misery and suffering would have been saved to French Canada forty years later had his wise counsel always been followed. Happily for Canada's peace and unity, the spirit he strove to promote prevails at the beginning of the twentieth century.

The Prince spent several years in Halifax — from 1794 until 1800 — in command of the imperial troops. The tourist of our own times is still shown an old round house, once covered with a dome, which stands on a beautiful natural mound overlooking spacious Bedford Basin. This was used by the military band when it played for the amusement of the visitors to the "Prince's Lodge," which was lent him by the Loyalist Governor, Sir John Wentworth, formerly of New Hampshire, but has long since yielded to that great destroyer, Time. As an officer the Prince was a too rigid disciplinarian, educated in Germany during a miserable youth by a harsh military martinet; but his own officers admitted that, despite his severity, he was always actuated by a most conscientious desire to do his duty. In the ordinary relations of life he w s generous, hospitable, and kind; and one who knew him well has written that "a tale of woe always interested him deeply, and nothing but gross misconduct could ever induce him to abandon any whom he had once been induced to befriend." His habits were temperate, and his influence was exerted successfully to stop the excessive drinking and gambling too apt to prevail in those days in a garrison town.

The life of the Duke appears to have been more or less tinged with sadness. He was obviously not a favorite of George III, who cast a blight over his youth by placing him under a stern, penurious German who even robbed him of his pocket-money. Through his whole career he was never given such an allowance as befitted his position; in fact, he was not fairly treated, like his royal brothers, by either king or state. He seems to have enjoyed much happiness in the society of Madame de St. Laurent, Baronne de Fortisson, who lived with him for many years, and won many friends in British North America, notably the De Salaberrys, to one of whom she was a godmother. His published letters breathe affection and respect for this amiable lady. The time came when the succession to the throne was in danger, and the

Duke was compelled to yield to the stern necessities of state. Then it was that Madame de St. Laurent retired to a convent; and history tells us no more of the gentle woman who cheered the life of a Prince in his too often sorrowful hours.

In 1818 the Duke of Kent married the widow of the Prince of Leiningen, and the sole issue was the Princess who became Victoria of England. She was only eight months old when her father died. She was present at his funeral. A spectator says:

"She was placed by her nurse against the carriage window to please the spectators; she looked upon them with her open, cheerful countenance, while playing with her little hand on the glass, quite unconscious of her loss — an incident which caused many a tear to flow."

Toward the latter part of his life the Duke had become popular in England, and his death was greatly regretted for a time. But he had never had an opportunity of making a deep impression on the national life, and he was soon forgotten. Indeed, there is not a mention of him in the "Encyclopædia Britannica." But he was the father of a great Queen, who must have inherited the noblest of his qualities. The memory of his visit still lingers by the side of Bedford Basin; and his name still clings to a beautiful, fertile island which nestles in the bosom of the gulf that washes the portals of Canada.

Six decades of years now passed before another prince of the English reigning dynasty came to Canada. During that long interval the provinces had suffered many vicissitudes. An irrepressible conflict grew up between the English and French Canadian nationalities in the province where the latter were dominant. The French Canadians eventually obtained full control of the popular Assembly, while the small official or governing class was in a majority in the Upper House appointed by the Crown. In some of the provinces this official class was generally called "a family compact," a derisive allusion to the selfish ties which united it against the popular party. The British Government gradually gave up the control of the provincial taxes to the Assemblies; but the concessions made did not satisfy the French Canadian majority, led by one Papineau, a brilliant, but unsafe, leader, whose aspiration it was to control both Council and Assembly by making the former elective, and to build up a *nation Canadienne* on the banks of the St. Lawrence. In the other provinces the popular cry was for responsible government which would give the people full control of their local affairs. In Upper Canada a petty insurrection occurred simultaneously with an equally rash uprising in Lower Canada. The rebellious element was easily re-

pressed, and the leaders ignominiously fled to the United States. The disaffection was limited to a small class: the mass of the Canadian people were loyal and believed in constitutional agitation.

The British Government now recognized that they must deal quickly and wisely with the political grievances of the provinces. Consequently, the accession of Queen Victoria was soon followed by the reunion of the Canadas and the concession of a more liberal system of colonial government. The influence of this wise policy was soon seen in the rapid development of the industrial resources of the country. A large population flowed into Upper Canada and made it the most prosperous and populous section of British North America. Commerce flourished; education was widely diffused; and the two races were taught the necessity of compromise, conciliation, and unity in national crises, when demagogues were ever striving to undermine the political structure for party ends or at the dictates of racial passion.

While Canada was thus enjoying commercial freedom and responsible government, the happy thought came to her statesmen to invite the Queen to visit the country, which had made such remarkable progress during her happy reign. Canada was not destined to see the face of her gracious Majesty, who expressed, however, in the reply which came from the royal palace,

"her sincere desire that the young Prince, on whom the Crown of this Empire will devolve, may have the opportunity of visiting that portion of her dominions from which this address has come, and may become acquainted with a people in whose rapid progress toward greatness Her Majesty, in common with her subjects in Great Britain, feels a lively and enduring sympathy."

The tour of the Prince of Wales, then a winsome youth of nineteen, lasted for nearly two months, during which he visited all important parts of British North America, from St. John's, Newfoundland, to Windsor, on the Detroit River, across which he passed into the United States, where he met a gratifying reception, though he travelled presumably incognito. Among other eminent persons he saw President Buchanan at Washington. His progress through Canada was a perfect ovation — a memorable tribute of affection and respect to his mother, during whose beneficent reign Canada had risen from the depression and adversity of the unhappy years of the rebellion to a condition of the most encouraging prosperity. The Prince had to suffer a terrible ordeal of addresses, whose prolixity would often have been unbearable had he not felt that there was not a mere lip-service, but a genuine touch of loyalty, in them all. The Parliament of Canada was not in session; but

a large number of members assembled in the two Houses at Quebec, and the Speakers — one of them a French Canadian — presented him with fervid addresses and received the honor of knighthood. The Prince, created a viceroy for such purposes, conferred no more such regal distinctions; and several mayors and other officials were disappointed at the decision of the Duke of Newcastle, his chief adviser, not to make honors cheap.

During his visit he laid the foundation of the present Parliament House at Ottawa, as well as that of the Victoria Bridge at Montreal. During the present month his son will see the Ottawa edifice in all the perfection of its architectural beauty; but the once famous bridge has recently given place to a superstructure more commensurate with the commercial necessities of the great railway which here crosses the St. Lawrence, and soon afterward forms a connection with lines in the United States. When the efforts of the Orangemen of Upper Canada to make a special demonstration in honor of the royal visitor were unsuccessful on account of the imperial advisers of the Prince refusing to countenance such party displays, some unpleasant feeling was created. Apart from this the visit of the Prince was distinguished by exhibitions of the most loyal and imperial sentiment, and did much to cement the connection between the dependency and the parent state. The affability of the handsome Prince, who showed in many ways that he was still a frank boy, won many hearts; and there are still some ladies, then young and charming, now white-haired and stout, who cherish not merely memories of the dance they had with the Prince who is now King, but even the glove of the hand which he held in the quadrille or waltz, and perhaps — as some thought, no doubt — faintly pressed when his partner had more than ordinary charm of form and manner. But though "the lights are fled" and "the garlands dead" of those gala days so glorious to many women, their daughters or grand-daughters may have an equally sweet experience, and renew the dances of forty-one years ago.

During the year that followed the tour of Albert Edward, Canada enjoyed the honor of a flying visit from his brother Prince Alfred, later the Duke of Edinburgh,[1] then a midshipman on board Her Majesty's ship *St. George*. From this time until 1869, when Prince Arthur, now the Duke of Connaught and Strathearn, came to Canada as an officer of an imperial regiment, most important changes took place in the political development of the British American provinces. Their political

[1] When he died, in 1900, he was reigning Duke of Saxe-Coburg-Gotha.

necessities forced them into a federal union which had long been advocated by eminent colonists — notably by Chief Justice Sewell, a Loyalist, in a letter to the Duke of Kent, who gave it his hearty approval. When Prince Arthur passed through Canada, the Confederation was only two years old, and the Canadian Government was taking steps to occupy great territories just purchased from the Hudson's Bay Company. A half-breed, or *métis*, Louis Riel, brought about a rising among his easily deluded countrymen on the ground that their rights were in jeopardy; but the imperial and Canadian authorities acted with decision. Riel fled, but was executed at Regina, in the Northwest, at a later time, for a similar attempt to defy law and authority. The new province of Manitoba was born in that vast western land. Prince Arthur gave his name to a port at the head of Lake Superior, whence for many years immigrants and merchandise found their way by a chain of lakes, rivers, and portages to the banks of the Red and Assiniboine Rivers.

Nine years passed by, and the Canadian people were delighted with the announcement that a royal Princess would come to live in Canada, for several years, as the wife of the new Governor-General, the Marquess of Lorne, now Duke of Argyll. The reception which the Princess Louise and her husband met on their arrival in the cities and towns of Canada was another testimony to the popularity of the royal family. At Halifax the popular enthusiasm was excited to the highest pitch by the arrival at the same time of the ironclad *Black Prince*, commanded by the Duke of Edinburgh, who since his visit, seventeen years before, had followed his profession in every part of the globe.

By this time Canada had made much progress in her onward march as a nation. British Columbia, on the Pacific coast, and Prince Edward Island, in the Atlantic waters, gave completeness to a Dominion extending across the continent for over 3,000 miles. The Princess and her agreeable husband identified themselves during their residence in Canada with literary, artistic, and scientific movements; and it is to their efforts that the Academy of Art and the Royal Society, both flourishing and useful national institutions, owe their existence. An accident to the Princess through the upsetting of a sleigh unfortunately affected her nervous system most seriously for many months, and prevented her from seeing as much of the Canadian people as she would have done under favorable conditions; but, so far as she was brought into contact with Canadians, all were charmed by her conversation and manner. Neither the Duke nor the Duchess of Argyll has forgotten this sojourn in Canada. Indeed, the former left it with the deepest regret, and has

ever since made it his pleasure to give the most kindly welcome to all those Canadians who visit the genial nobleman whose highest delight is the pursuit of letters.

Eight years after the departure of the Marquess of Lorne from Canada, the Duke of Connaught, Prince Arthur, landed at Vancouver, on the Pacific coast, on his way to England from the East, where he had been commander-in-chief at Bombay. When he visited the young Dominion in 1869, the western limits of railway communication did not extend beyond Sarnia, in the province of Ontario; but in 1890 he and the Duchess were swiftly carried to the Atlantic over continuous rails in a special train of cars, described by the journalists of the day as "epicurean palaces," drawn by a noble engine expressly decorated. Vancouver, then only three years old, already gave promise of great expansion; and on the journey eastward the royal party saw villages and towns springing up from the Rockies to Winnipeg, even then a city of over 25,000 people.

Now Canadians, French and English alike, men of all classes, races and creeds, are eagerly awaiting the visit of Prince George Frederick Ernest Albert, the only surviving son of the King, Edward VII, known as the Duke of Cornwall and York, heir-apparent to the English Crown, who will be soon created Prince of Wales — a title which becomes merged in the Crown at every vacancy, and is only renewed at the Sovereign's pleasure. He is now thirty-six years of age, and is the possessor of many royal titles and academic honors, which come to a Prince as a matter of course. He followed the sea for some years, and became a captain in 1893, when he married the only daughter of the Duke of Teck, Her Serene Highness Princess Victoria Mary Augusta Louisa Olga Pauline Claudine Agnes, who accompanies him on this visit to the Canadian Dominion. His itinerary brings him in the royal yacht *Ophir* to Quebec on September 16, and after visiting Montreal and Ottawa he proceeds immediately West as far as the Pacific coast. Then he returns to the East, and pays extended visits to Ontario and the Maritime Provinces, whence he leaves for England toward the end of October.

All the preparations which have been made for his reception by the governments and municipalities of the Dominion, from Halifax to Victoria, are most elaborate and will eclipse those of 1860, since the opportunities for display are now so much greater in a rich and prosperous Dominion stretching from sea to sea. One of the most interesting functions that the Prince will be called upon to perform on the after-

noon of the day he first lands in the Dominion will be the formal dedication to public uses of the Plains of Abraham, where Wolfe won the famous victory which ended the French régime in the valleys of the St. Lawrence and Mississippi, and made the Anglo-Saxon race dominant in North America.

A hundred and fifteen years have passed since the visit of Prince William, who, first of the royal family, saw the provinces in their formative stage. Then the future of the country was doubtful in the extreme. England's empire in America had been broken by the defeat of Cornwallis at Yorktown, and not a few European statesmen believed that she was not able to maintain her dominion for many years in the valley of the St. Lawrence. The coming of the Loyalists saved her in North America, whilst the energy and enterprise of her sons eventually surmounted what was only a temporary check, and restored her to imperial greatness.

Now, in the beginning of the twentieth century, another royal prince is about to come to British North America, which has developed in a hundred years into a federation with a territorial domain almost equal to that of the powerful republican nation which sprang into existence in 1783. During this period the population of Canada has increased from 220,000 souls to upward of 6,000,000; the trade from $10,000,000 to $380,000,000; the revenue, which was practically nothing, to over $50,000,000, apart from the revenues of the respective provinces, which must largely increase the aggregate of the public resources. Education of every grade is diffused far and wide; railways span the country in every direction; canals connect the great West with the Atlantic seaboard; an elegant order of architecture illustrates the growing taste and wealth of the people; culture is being more widely spread; and the public legislation shows the capacity of the public men for self-government. The people of every nationality within the Dominion of Canada stand on the same platform of equal rights. It is this happy condition which has made it possible for Sir Wilfred Laurier — a brilliant man of the race which occupied a position of inferiority in the days of the Duke of Kent and evoked his deep interest and sympathy — to attain, with the approval of all classes, creeds, and nationalities, the highest office in the gift of the people, and to give emphatic expression, in the case of the South African war, to the determination of Canadians to maintain the interests of the Empire at all hazards.

Such questions of taxation and such ignorance of colonial conditions as precipitated an American revolution; such blunders as aggravated the

political difficulties of Canada previously to the concession of responsible government — these can never again occur under the wise colonial system which was adopted during the Victorian era, and which gives full expansion to the political aspirations of a self-governing people. The relations between Great Britain and her dependencies are now governed by just such principles as were first suggested by the sagacious Loyalist, Governor Hutchinson, more than a century ago, but which it took English statesmen many years to understand and carry out. As a natural sequence of a correct understanding of the relations that should exist between an imperial state and its dependencies, Canada is now ready, like the colonies of Australasia, in the hour of imperial necessities, to contribute from taxes raised by her own legislature adequate means for the defence of that connection which was rudely broken in the case of the old Thirteen Colonies through the failure of statesmen on both sides of the Atlantic to understand the basis on which colonial self-government should securely rest.

Canada's position in the Empire is one of which her people may be justly proud. But as they now review the past with its many evidences of devotion to England, of capacity for self-government, and of statesmanlike conception and action in the administration of public affairs, they must not forget how much they owe to the Loyalists and all the other makers of their national structure. French Catholics and Huguenots, Puritans and Cavaliers of the days of the Stuarts, Scots from the Highlands, the Hebrides, and the Lowlands, Scotch-Irish Protestants from the North and Catholic Celts from the South of Ireland, Englishmen from the hop-gardens of Kent, from the meadows of Devon, and from all parts of that ancient kingdom where the Saxon and Norman have so happily blended in the course of centuries — all these have united to form a Canadian people who have planted themselves successfully and firmly over the vast territory which stretches from east to west, to the north of the Federal Republic. The heir-apparent to the Crown of the British Empire will, consequently, see a prosperous, progressive, and contented people, animated by an earnest desire to place, if possible, the relations between the Canadian Dominion and Great Britain on an even more permanent and equable basis, which will, to all time, give unity and strength to the whole Empire, and secure for the dependency more direct influence in the councils of the imperial nation.

More than this, the Prince will find that the Canadian people have a sincere desire to maintain the most friendly relations with their great neighbors, whose enterprise has built up in the course of a century a

most powerful nation, of which the real strength lies in British law and British institutions adapted to their special conditions. He will not hear a whisper of that spirit of annexation which the Right Honorable Joseph Chamberlain, with a remarkable ignorance of Canadian sentiment since 1783, very recently declared had some existence at the commencement of confederation in parts of the Canadian provinces; though he will find Canadians ever ready to welcome American capital and enterprise for the development of their unbounded resources. He will find that the closest and kindliest intercourse exists between New England and the Maritime Provinces, and that many thousands of the descendants of the Loyalist makers of those provinces, having returned to the homes from which their fathers were ruthlessly forced, now help to strengthen friendly ties between kindred communities.

Canadians and citizens of the Republic now forget the past, with all its bitterness, and take an equal pride in the achievements of peoples allied to each other by so many bonds of a common origin, language, and interest. Champlain and Winthrop, Washington and the Adamses, Hutchinson and Galloway, Brock and De Salaberry, Williams of Kars and Inglis of Lucknow, Lincoln and Gladstone, Disraeli and John Alexander Macdonald, Longfellow and Tennyson, Parkman and Macaulay, Grant and Sherman, Dewey and Roberts, are names which are worthy of respect and honor, whether we live near Hawarden Castle across the Atlantic, on the banks of the Ottawa or of the St. Lawrence, under the elms of Cambridge, at Mount Vernon by the side of the Potomac, or beneath the shadow of Table Mountain in South Africa.

JOHN G. BOURINOT.

ENGLISH NEGLECT OF OLD INDIAN POETRY.

THE way in which India is treated — India on whose possession the standing of England as a world-power reposes — is well calculated to give rise to utter astonishment. During the recent terrible famine, extending over an area which contains 60,000,000 people, when hundreds of thousands were dying month after month, and the roads were full of the corpses of men and the carcases of beasts, so rich a country as the United Kingdom gave not a penny from its State Exchequer for the relief of suffering. All was left to private benevolence; and small enough were the contributions, owing to the war in South Africa. There, again, since the fall of 1899, the most terrible misery has been brought upon once free and flourishing lands.

For nearly forty years I have been making the acquaintance, in London, of a great many Indians who have been coming here: Hindoos, Mohammedans, Buddhists; students, men of letters, Rajahs, and ministers or agents of native Indian princes. How often have I heard them complain of the want of both knowledge and interest in their country's history, condition, and welfare, which, to their amazement, they had found among so many otherwise highly educated and intelligent Englishmen, including notable politicians and public writers! I could not contradict these complaints; for I had had too much experience of the same kind whenever in English society the conversation had turned on Indian affairs.

Once I had such an experience with a friend of mine, a Liberal Cabinet Minister, and a man of considerable culture. I spoke to him of the Russian danger, looming at no great distance, as a menace to England's great Asiatic Empire. He was rather disinclined to accept this view; and, as a reason for his own opinion, mentioned the large number of the English population in India. His remark, I confess, took me aback. I asked what proportion he thought the number of the English inhabitants bore to that of the natives. He evaded the question, saying that it was difficult, on the spur of the moment, to go into statistics. Seeing how shakily matters stood with my friend, who, as a Cabinet Minister, was one of those responsible for the rule of India, I pressed him good-

humoredly to give me, at least, some general idea of what he imagined to be the proportion. After much hesitation, and with evident signs of mental confusion, he said: "Well, I think there are about 3,000,000 Englishmen in India." "And how many natives?" This question, he thought, it would be too difficult for him to answer, unprepared as he was. I then told him — it was some years ago, before the more recent census — that there were in India about 280,000,000 natives, as against 140,000, not Englishmen, but Europeans of various nationalities. These 140,000 included the white English troops, which numbered, at that time, about 64,000. My friend now became quite distressed. He would scarcely believe that things stood so. I promised to send him next day the official statistics, which, through the kindness of the India Office, I had received in manuscript copy before they had been printed.

In private intercourse I have often found similar incredible ignorance in quarters where it was scarcely to be expected. With the exception of the small class of military men and officials who have been in India, very few persons, even among prominent politicians, take the trouble to make themselves acquainted with Indian affairs. The budget of that colossal empire is always discussed, or, rather, hurriedly disposed of, at the end of the parliamentary session. A glance at the House of Commons on such an occasion shows that there are frequently not more than a dozen members present — some awake, others in a comatose state, lying about on the seats. Indians of distinction, who listen as strangers in the gallery, are always amazed at the extraordinary spectacle thus presented to them. They scarcely trusted their own eyes, some of them said to me afterward.

This political preface was perhaps necessary for the better understanding of another extraordinary phenomenon. The rich and remarkable poetical literature of ancient India is wholly unknown in England to the large mass of educated people, so much so that the very name of the most famous Indian drama, "Sakuntala," and that of its author, Kalidasa, have, in my experience, often been unknown to ladies and gentlemen who might have been supposed to possess at least a smattering, or a vague knowledge, of such things.

To speak frankly: Is it not a great shame that a renowned drama which has held its place on the Indian stage for nearly fourteen hundred years should never have been acted in England until about two years ago, when it was given, for the first time, by amateurs, not in a theatre, but — oh, ye insulted gods of the Hindoo Olympus! — in the Conservatory of the London Botanic Society in Regent's Park.

Yet Kalidasa, the author of "Sakuntala, or the Ring of Recognition," has been called the Shakspere of India by no less a writer than Sir William Jones, the distinguished English Sanskrit scholar, and first translator of the play. It was a hundred and twelve years ago — in 1789, the year of the great French Revolution — that his translation was first brought out. Strange to say, no other English version was published later, until Sir Monier Williams put his hand to a kind of emendation.

I had occasion recently to discuss the subject with an English author of considerable merit. He had lived in India, was conversant with its literature, and had frequently written on that subject. To my surprise I found that he was not aware of the existence of two different versions of "Sakuntala," which essentially vary in many parts. Yet the second version had been made known in Europe so long ago as 1842. His own surprise at what I stated to him was no less great than mine.

When that famed drama was acted in the London Botanical Gardens I had occasion to speak to a good many people belonging to the highly cultured and socially upper classes. Among them, again, I met with but little knowledge, and even that among a very few indeed. It is different in Germany, among both men and women. There "Sakuntala" is truly a word to charm with. Handy little editions are to be met with everywhere; and the appreciation of the drama may be said to be universal among all who can lay claim to a higher education.

In the programme of the Elizabethan Stage Society of London, which has done meritorious work, and through whose agency Kalidasa's play was at last brought before a small audience in the Conservatory aforesaid, the following passages occurred:

"It may be stated without exaggeration that modern German scholarship has done more to elucidate the ancient history and literature of India than the scholarship of all other nations of Europe. Indian poetry is better appreciated in Germany than in England or in France. Indian dramas are often acted on the German stage."

Six years ago, the writer of that programme continued, he found a cheap and elegant edition also of "Vasantasena," a German rendering of the Indian "Mrichchakati," in all the shop-windows of Wiesbaden and Frankfort. The play, he said, had been often on the stage, and was pretty well known to the German public. I may add that other works of Kalidasa are also published at Leipzig in handy and cheap little editions. Even "Seventy Songs of the Rig-Veda," translated by Karl Geldner and Adolf Kaegi, and published in 1875, had at that time and for years afterward a good circulation.

The praise of "Sakuntala" was sung long ago by Goethe, Schlegel, Humboldt, and other eminent men in Germany and France. Goethe thought that if we wanted to know all that is beautiful and tender, the name of Sakuntala needed only to be pronounced, and then everything was said:

> "Willst Du die Blüthe des frühen, die Früchte des späteren Jahres,
> Willst Du, was reizt und entzückt, willst Du, was sättigt und nährt,
> Willst Du den Himmel, die Erde, mit *einem* Namen begreifen,
> Nenn ich, Sakuntala, Dich; und so ist Alles gesagt!"

English scholars were the first to open up the treasures of old Indian poetry. Yet, after a hundred and twelve years how many English people have read that play? How many have even heard its name and that of its author? Yes, the statement of the writer of the Elizabethan Stage Society's programme is but too true. Whilst in England there is a painful blank of general knowledge, in Germany both Kalidasa's play and that of King Cudraka — "Vasantasena, or the Earthen Waggonette" — are largely read. Of "Sakuntala" there are but two English translations, founded on the same first text. Of German translations there are not less than eight.

The first was made by Georg Forster, the distinguished scientist and sympathizer with the principles of the French Revolution, who had devoted himself also to the study of Oriental languages. His version, however, was based on the work of Sir William Jones. It appeared as early as 1791, in the midst of the storm and stress of revolutionary events. A second edition of it was brought out in 1803, after Forster's death at Calcutta, by the German poet Herder, whose own works testify to the wide interest he felt in the literature, the history, and the archæology of all nations.

Then, some thirty years later, there followed, in rapid succession, a number of new German translations, several of them by eminent scholars. Their authors are: Bernhard Hirzel, Otto Boehtlingk, Ernst Meier, Edmund Lobedanz, Friedrich Rückert (the poet and Orientalist), Ludwig Fritze, and Hermann Camillo Kellner. Irrespective of these versions, adaptations for the stage have been repeatedly made in Germany.

But how stands England in that respect? The translation by Sir William Jones was made from the so-called Bengali text. The other text, which varies to some extent from the one he used, and which has beauties of its own, was discovered nearly fifty years ago. It became first known by Boehtlingk's translation, and is called the Devanagari text. They harmonize, no doubt, in the main; but in several scenes

each of these texts has passages which are lacking in the other. And if I can draw a conclusion from the personal experience mentioned, it seems that even men who have occupied themselves to a considerable extent with Indian literature, and who have lived for years in England's vast South Asiatic Empire, are still unaware of a discovery made so early as 1842!

It was in the sixth century of our era that a brilliant revival of literature and learning, of science and art, took place in India. It was the age of a distinguished ruler, Vikrama-aditya, whose name — as the note of the Elizabethan Stage Society observed — is to this day more universally known to the Hindoo world than the name of the Frankish Kaiser, Karl the Great, is in Europe. The note says, very truly:

"The great poet Kalidasa is more widely and popularly known in modern India than Dante is in Italy, or Shakspere in England. Kalidasa's 'Sakuntala' is the most beautiful creation of the imagination which the Hindoos have produced, if we leave out their ancient epics. It depicts Hindoo court and camp, Hindoo life and manners, Hindoo faith and traditions, Hindoo saints, warriors, and courtiers, and Hindoo men and women in the humbler walks of life, as they lived and acted thirteen centuries ago. The drama has never ceased to be popular with Hindoos during this long period. It has been acted, century after century, before Hindoo kings and chiefs, on great and festive occasions. Rendered into the vernaculars of modern India, it is still on the stage, and is acted from time to time in Calcutta, in Bombay, and in the great towns of Northern India. Of few dramas that the world has produced can it be said, as it can be said of 'Sakuntala,' that it has been before the public during thirteen centuries. When this drama was first translated into English toward the latter end of the last century, it took the literary world of Europe by surprise. The greatest literary men of Europe were most eloquent in its praise."

Very true! But how are we to account for the neglect in England? Again, compared with at least some of the German translations, the English ones do not read so well, though — as the note before-mentioned remarks — both that by Sir William Jones and that by Sir Monier Williams have beauties as well as drawbacks. The former has "many long-tailed words scarcely appropriate for the use of the stage; and in his rendering of Sanskrit verses into English prose much of the beauty, as well as the music and rhythm, of the original is lost."

I would add that all the tender love passages, in which Kalidasa's drama is so rich, suffer greatly in the two English versions. In this respect, Sir William Jones's style is too much that of the classically formalist period in which he wrote. It often fails in appealing to the heart of the modern man and woman, who have a simpler, more natural way of expressing themselves when the great passion comes over them. Of Sir Monier Williams, the writer of the Elizabethan Stage Society observes that he has "acted wisely in translating Sanskrit verses into English

verses; but his style, both in prose and verse, is somewhat commonplace and seldom equals the elegance of Sir William Jones's rendering. *A good translation of 'Sakuntala' into English does not yet exist.*"

Why, then, I have often asked myself, should not an Orientalist scholar and poet, like Sir Edwin Arnold, give a new translation, and thus popularize the great Indian drama as much as has been done abroad? I learn, to my regret, that Sir Edwin Arnold's health is at present too much affected for us to hope that he may be able to undertake such a labor.

Those who have seen "Sakuntala" given by amateurs cannot fail to have been struck by the potentialities of the play if it were placed in the hands of first-rate actors. Even Maeterlinck's "Pelleas and Melisande" draws with a section of the English public; and would English audiences have nothing to say to the work of the Shakspere of India?

In its pathetic as well as in its humorous parts "Sakuntala" has truly an astonishing affinity to the productions of the greatest dramatist the world has ever seen. When Madhavya, the King's Fool, comes on the stage, or when the Fisherman, who has found the fatal ring of recognition, lost by Sakuntala — whereby she, for a time, lost her position as the King's consort — is led in by Indian Dogberrys, how very much all that reminds us, between deeply pathetic scenes, of the Englishman's master-hand! And how romantic are the love scenes, rather different from Greek or Roman ways of expression, and really nearer to the European feeling of our days!

King Dushyanta's temporary loss of memory in regard to his amorous encounter with Sakuntala, the heroine of the drama, distantly brings back to our mind the story of Brünnhilde and Siegfried, of Tristan and Isolde. Nor is the intervention of heavenly personages and semi-deities which occurs in Indian plays more strange than similar occurrences in Hellenic epic poetry and tragedies, or, to speak of the present time, in Richard Wagner's music dramas. If we can bear and enjoy that in one case, why not in the other, provided it is efficiently done on the stage?

Just as the Norse Edda and the German Nibelungen Lied were discovered and saved from oblivion almost accidentally, so also Sir William Jones originally had not a little difficulty in unearthing "Sakuntala," at any rate for English purposes. Often he had vaguely heard of works of that kind; but he was continually put off the track by contradictory statements from natives as well as from Europeans. At last, so he relates, a very intelligent Brahman, who had long been attentive to English manners, removed all his doubts, and gave him no less delight than

surprise by telling him that the English nation "had compositions of the same sort, which were publicly represented at Calcutta in the cold season, and bore the name, as he had been informed, of plays." Resolving to read the best of them, Sir William Jones asked which of those Indian plays was most universally esteemed. The Brahman answered, without hesitation, "Sakuntala," supporting his opinion, as usual among Pundits, by a couplet eulogizing the brilliancy and the rich exuberance of Kalidasa's genius. Having procured a copy, Sir William Jones, with the aid of his teacher, Ramalochan, began by translating it verbally, first into Latin, which he held to be more convenient than any modern language for a scrupulous interlineary version. Then he "turned it word for word into English, and afterwards" — as he says in his preface — "without adding or suppressing any natural sentence, disengaged it from the stiffness of a foreign idiom." In this rather roundabout way that pearl of dramatic Indian literature was finally made accessible to the European public.

In "Sakuntala," Kalidasa's Prelude between the Manager and the Actress is astonishingly modern in tone and sentiment. I give the words in Professor Kellner's version, as there is only a portion, in prose, in Sir William Jones's translation. There the actress sings:

"Leise, leise küssen Bienen
Liebliche Sirischa-Blüthen,
Die im Blumenkelch geborgen
Zarte Blumenfäden hüten.

Und in traulichem Gekose
Kommt verliebter Mägdlein Schaar,
Pflücken Blüthen, winden Kränze,
Flechten Blüthen sich in's Haar."

Is there not a strain both of Anacreon and of Heine in this?

I have often talked with Indian friends about "Sakuntala," and have not been surprised that they could not understand why there should be so little interest in England in regard to these things. Would it not — if one may come down even to the political standpoint in matters of poetry — be useful for England's tenure of power in India to promote a better knowledge of the old literature of her great Asiatic Empire? It is not by the sword alone that empire can be held in the long run. There must be a strong intellectual link, also. And it may be safely asserted that the educated classes of India resent it deeply that the English nation should be so neglectful, and apparently so contemptuously ignorant, of what they themselves hold in high esteem. KARL BLIND.

LITTLE more than twenty years have passed since the South Atlantic and Gulf States of the Union were regarded by the world at large as wholly agricultural; and the world at large was, as usual, approximately correct. Yet to-day a million beings derive their support, directly or indirectly, from labor in Southern cotton mills — no inconsiderable army, indeed, and one that increases with every passing month. It will be scarcely denied that this lately organized class of labor is already sufficiently important to demand attention when the problems and possibilities of the working world are being weighed.

Many factory communities in the new industrial South might be named as typifying, each in some valuable particular, the present wide-reaching movement toward the betterment of the working-man's conditions. The Courtenay Mills, of Newry, South Carolina, furnish their operatives with cottage homes that are patterns of comfort, neatness, and sanitation. The manager of the Atherton Factory, at Charlotte, North Carolina, has for several years offered a set of prizes for the best flower and vegetable gardens, and the handsomest pot-plants; thus easily securing his aim of adding to the resources and attractiveness of his employees' homes. This mill is in itself very pleasant to look upon. A luxuriant growth of English ivy lends grace to the substantial walls and tall tower; and the grounds, bordered by a fine green hedge, are converted into an attractive lawn of wide extent, with well-kept grass, shade trees, and shrubs. Just beyond the hedge-row, among the white cottages, stands the "Hall," a donation from the company to the people. The hall is occupied by the settlement school during week-days. At night it is lit up, and there are parties, sociable gatherings, club meetings, prayer meetings, and often lectures and concerts, free to the operatives.

At the Peedee Mills, Rockingham, North Carolina, the employees are not merely encouraged but urged to save their money and buy homes, inducements of many kinds being offered to this end. Quite a number of neat cottages outside of the factory premises are now owned and occupied by the operatives.

At the Erwin and the Caraleigh Mills, North Carolina, not only are there very excellent free schools, carefully graded, with night classes for all who choose to attend, but also Sunday schools possessing unusually attractive features; and, better still, there are coöperation and close personal acquaintance, confidence, and sympathy between mill managers and mill people.

The Piedmont Manufacturing Company, of South Carolina, maintains for its employees and their families a library of several thousand well-selected volumes, and a graded school of superior advantages, now showing an enrolment of nearly 600 pupils, all living on the mill premises. Huntsville, Alabama, has its day nursery, kindergartens, night schools, and gymnasia, open to all operatives. The Eagle and Phenix Mill Company, of Columbus, Georgia, conducts an ideal working-people's club, with recreative and literary features, baths, athletics, a lyceum course, and classes for instruction in business and science.

The list might be greatly extended; but it is my present aim to invite attention to a mill settlement which is generally conceded to have united in itself more points of advantage for the working-people than any other single factory community in the section which has so lately come into its manufacturing privileges. The model factory town of the South to-day is Pelzer, South Carolina. The Pelzer mills, in Anderson county, on the line of the Columbia and Greenville railroad, are very picturesquely situated on the Piedmont escarpment, along the Saluda River, a stream which has been harnessed to furnish electric power for running this quartette of great factories, housing upwards of 110,000 spindles and a full complement of looms. The latest of the mills, Number 4, is an especially imposing building, with its 508 feet of length, 450 gleaming windows, and four tall towers. It is built of brick, handsomely trimmed with granite, and crowns an eminence commanding a magnificent outlook over the varied landscape of river, valley, woodland, and the blue mountains to the north and west.

The men whose capital and brains have brought this enterprise to the present point of development have recognized from first to last that upon them rests a responsibility beyond that of merely sowing dollars so as to reap more dollars. President Smyth and his brother officers have held in common with other advanced men of the day the conviction that only through the improvement of the conditions surrounding the producing classes can labor problems find their solution; that the elevation of the working-man must be achieved first for the sake of the working-man, then for the sake of capital.

The chief measures now in successful operation for the betterment of conditions among the toilers of our Republic may be hastily summarized, for our purposes, as follows: Club organizations, in which working people are banded together for social, recreative, educational, and kindred ends; the encouragement of physical culture through gymnasia, outdoor sports, and similar means; the promotion of improved social conditions by informal gatherings, outings, assembly places, game rooms, dances, and festival occasions of various sorts; the elevation of domestic life by means of improved dwellings, and the systematic teaching of cooking and other housewifely arts; the improvement of intellectual conditions by means of free educational facilities of every sort, including libraries and lectures, as well as industrial schools and manual training classes; the cultivation of musical and artistic tastes by means of concerts, the organization of music and art clubs among employees, harmonious surroundings, landscape gardening, and tasteful architecture; the uplifting of the spiritual side of life through Sunday schools, churches, and general religious work; the consideration of the health and comfort of employees, evinced in improved sanitary construction and similar measures; the care of disabled employees and their families, free medical attendance, and the rendering of judicious financial aid; the promotion of thrift and providence through savings banks and like facilities; and, lastly, the sharing of profits with employees, either by allowing them to purchase shares in the business at special rates, or by the more liberal method of adding yearly or quarterly dividends to wages, in proportion to length of service, etc.

How many of these measures are carried out, and to what degree, in the Pelzer community, the reader will be able to judge for himself when I have set down the main points in regard to this model Southern factory town.

About the four mills hitherto mentioned clusters a pretty little city of something over 6,000 inhabitants, all of whom derive their sustenance, mediately or immediately, from the factories. The town is not incorporated, but is held as private property and governed entirely by the rules and regulations of the mill corporation. Hence, no municipality imposes taxes, and no mayoralty elections, aldermanic squabbles, or ward politics keep the people in a ferment. Order and peace uniformly prevail; for liquor, the fruitful source of strife, cannot be sold in the town, and any disorderly element that may creep into the population is quickly detected by the watchful management, and is banished with small ceremony.

There are in the town about 1,000 dwellings — tasteful and well constructed cottages—averaging four rooms each, and rented at the rate of fifty cents a room per month. Each little home has its allotted garden space for flowers and vegetables, besides the use of the common meadow land for pasturing cows free of charge. Water is supplied to every dwelling, and all sanitary as well as street work is carried on at the company's expense. Consequently, the entire town, from end to end, is as tidy and tasteful as a good housewife's guest-chamber.

The pride of Pelzer, as of most other worthy communities, is its graded schools, maintained for ten months in the year entirely at the company's expense, and free to all residents. Two well-equipped buildings afford ample space for all the youth of the community. Every teacher is chosen with special reference to his or her capacity for this distinctive work. Last year about 800 pupils were enrolled, and the examination papers showed an excellent average of scholarship. Night classes are always open to such operatives as must devote their days to earning a livelihood and yet are desirous of acquiring an education. Some children, whose families need their help, work in the mills at stated hours of the day, at the expiration of which time certain portions of the machinery are shut down, and the children, having earned from twenty-five to fifty cents apiece for their half-day's labor, hie away to the school, where special provision is made for them, the hours being short and the teaching largely individualized. Education may be said to be compulsory here, for the corporation demands of the heads of families that their children shall be sent to school at least up to a certain point. Religious privileges are also freely supplied to the community, as there are five churches and numerous religious organizations.

Another gift of the corporation to its employees is the "Lyceum," a really handsome building, housing many benefactions. Here is a circulating library comprising nearly 5,000 volumes of approved standard literature, to which additions are being made month by month. The books are contained in a commodious apartment called "the ladies' reading room," but open to all. Its tables are liberally supplied with newspapers and other periodical literature, both popular and scientific. The next apartment is furnished with facilities for carrying on social games, while still another is set apart as the "gentlemen's reading and smoking room." All the privileges of the lyceum are absolutely free to residents of the town, as the company assumes every expense in connection with it. The building is open each evening from 6:30 to 10:30.

Regular courses of free lectures on history, travel, and popular sci-

ence are also provided; there are occasional concerts; and other entertainments of a kindred nature are not uncommon. In all of these the citizens evince a lively interest, and the benefits received through such channels of teaching have been very marked in the last dozen years. Over all the amusements of the people, indeed, the management exercises a sympathetic supervision — never an irritating interference, but a gentle leading toward that which is elevating, to the exclusion of low tastes. Special encouragement is given to athletics and outdoor sports. The company has uniformed several base-ball teams, and continues to appropriate something each season toward their current expenses. A fine bicycle race track is kept up. In short, the authorities are constantly on the watch to make provision for the entertainment of the people, particularly on public holidays; and out-door festivals, including sports, are given the preference. The Smyth Wheel Club, a regularly organized bicycle club of the employees, gives frequent exhibitions of rapid and fancy riding; a contest for prizes offered by the mill company being an important feature of such occasions. A military company, organized among the young men operatives, and known as the Smyth Rifles, is a part of the State militia; while a brass band numbering thirty-six members, equipped with fine instruments, adds greatly to the pleasure of this and neighboring communities. Each of these organizations has been fostered and aided in all necessary ways by Mr. Smyth and his associates.

The mercantile affairs of the town are carried on by several establishments with which the mill company has no connection beyond owning the buildings occupied by them. The largest business in the place is done by a corporation with a paid-in capital of $25,000; the shares, of $25 each, being nearly all owned by the factory operatives, who conduct the business through a manager elected by themselves. This store is quite popular with all classes of the citizens; and so greatly have its affairs prospered that several substantial dividends have already found their way into the pockets of its shareholders.

Thrift is induced in other ways, also. For instance, the officers of the Pelzer Company conduct a savings bank in which employees are encouraged to deposit all surplus earnings. Upon such deposits they receive interest at the rate of one per cent per quarter. A year ago the deposits in this bank amounted to $90,000.

Much more that is worth relating might be told of Pelzer and its people, but the main points have been given. Perhaps some one now stands ready to declare that while all these things are well enough, yet the corporation, advanced as it is, still fails to live up to the most vital

principle in the new conception of a proper adjustment of relations between capital and productive industry, that is, profit-sharing with employees. Such a critic is in error. All the institutions of Pelzer proclaim that profits are very generously shared with employees, and that each man gets his share in such a shape that he cannot be robbed of it.

But another objector of a different mind may laughingly declare that this is a little Utopia, a pleasant vagary in the workaday world, impracticable, even impossible, and perhaps he adds undesirable, except in one case out of thousands. He, too, is wrong. Any homogeneous manufacturing community may approximate the happy conditions of Pelzer — not only may, but should do so. The indispensable requisites are breadth of purpose, sound judgment, and generosity, on the part of the managers. It may be added, however, that the Pelzer Company has been fortunate in the class of people it has had to deal with. This native Southern population, driven by desperate conditions from the tenant farm and the hill-top patch or pasture into the newly built cotton factories, is good material with which to fill such towns as Pelzer. Saxon to the core, and endowed, despite the prevailing illiteracy, with a strong natural intelligence, clean morality, and invincible independence, these people are capable of developing into the sturdiest, most useful, and enlightened citizens.

"Has the experiment paid?" some one asks. If the happiness of giver and receiver could be coined into acceptable currency, and the benefaction to posterity measured, weighed, and set forth in figures, my reply would overwhelm the questioner. But intangible things scarcely count with a man who would ask if such an experiment as Pelzer pays. The officers of the company had best answer him in simple, practical language, to the effect that the money they expend on the health and welfare of their employees, on recreations, schools, and other facilities, pays as handsome a dividend as any investment they could make; that they have, through such means, drawn about them the best class of labor in their part of the country; and that during the entire period of twenty years since their organization, the labor difficulties which have so grievously beset and burdened other sections have been an unknown evil in their great plant, with its working corps of 3,000 operatives.

LEONORA BECK ELLIS.

CAN CUBANS GOVERN CUBA?

A JOINT resolution passed by the United States Congress declaring that "the people of the island of Cuba are, and of right ought to be, free and independent," is responsible for what will prove to be an opera bouffe government in that island, unless Cubans have learned from the mistakes of other Spanish-Americans, and are able to develop character and capacity never yet displayed by any nation of Spanish descent.

No one can detract from the bravery and daring of Spanish character as demonstrated by the deeds and discoveries of the new world pioneers in their explorations and conquests. Unsailed oceans, unmapped coasts, mighty mountains, tangled forests, and the hostility of native tribes could not stay their venturesome progress. Early in the sixteenth century they had overrun America from the Arkansas to Cape Horn, and had added an empire larger than all Europe to the dominions of their royal master. This was accomplished by a ridiculously small force. A little group of men, no more in number than the police of a second-class city, conquered for Spain her territories in North and Central America, and an even smaller number planted her banner on the ruins of the Inca Empire. No braver or more daring men ever girded sword on thigh or followed a leader to battle.

During both the ten years' war and the later one in Cuba, which resulted in the overthrow of Spanish sovereignty, as well as during the Philippine insurrections, many deeds of daring were performed, and much suffering was patiently endured, worthy of being enshrined in song and story. Admiral Cervera's dash out of the harbor of Santiago de Cuba in the face of the loaded muzzles of the American fleet, in obedience to superior authority, and to save the honor of Spain, when his judgment told him that the effort would meet with certain defeat, was as brave a deed as any recorded in the annals of naval heroism.

But the architects of states need more than bravery in order to build for generations yet to come. Neither Spanish colonists nor their descendants, whether of pure or mixed blood, have ever developed the constructive faculty and executive capacity that are necessary in order

to establish a stable government. The evolution of constitutional liberty, the sanctity of the ballot, the purity of courts of justice, and the ability to administer national finances are matters of slow growth and development. They cannot be secured by imitation, and they have never been successfully exercised by people of Spanish origin or training. With the exception of Benito Juarez, a pure Indian, by the way, it is difficult to recall the name of a single person in Spanish-American history eminent for those qualities of mind which can plan with careful forethought institutions fit to endure the test of time.

Spain destroyed in America two civilizations, those of Mexico and Peru, each superior in some respects to that planted by the conquerors. The vice-regal domination of the mother country in both America and the Philippines has a history of centuries of misrule, violence, injustice, and oppression. The gentle natives of the West Indies, who had received the first comers as guests, were utterly destroyed in less than fifty years after the discovery; and it has been estimated that during this period not less than 12,000,000 native Americans perished under the mailed hand of the soldiers of Spain. When one of the last native caciques of Cuba, the heroic Hatuey, was urged to embrace Christianity in order to be saved, he frankly said that if there were Spaniards in heaven he did not want to go there. Aztecs and Incas were slaughtered or enslaved. The rich treasures of America corrupted rather than strengthened the Peninsular government, and the provinces of Ultra Mar became the spoil of those who had friends at court. Weyler was a legitimate descendant of such men as Cortés, Pizarro, Tacón, and Balmaceda, and followed the historical examples established by a long list of predecessors. It is a sad story from beginning to end, with here and there a ray of light from noble churchmen like Bartolomé de Las Casas and Junípero Serra, who struggled in vain against the abuses of the secular arm of the government.

Columbus was a victim of Spanish injustice, and fretted out his last years in futile attempts to secure a small portion of the honors and emoluments which the Throne had solemnly covenanted to bestow upon him. Cortés murdered Montezuma, and his followers tortured Guatemozin. Then, in turn, the conqueror became the victim of conspiracies, and was discredited at court; and a little later his son Martín was put to the torture by avaricious rascals, devoid alike of mercy, fear, and shame. In Peru, Pizarro slaughtered with scant ceremony both the natives and those of his own race who conspired against him. He, too, met with a violent death, as did his brother Gonzalo, who succeeded him as a leader

of the Spanish troops in Peru. It is a painful record, conceived in avarice, born of blood, and cradled in gross injustice — growing a little better, perhaps, after the conquest, but so full of wrong that in the early years of the nineteenth century it gave rise to the revolutions by which Spain lost all her colonial possessions except Cuba, Porto Rico, and the Philippines.

It was thought that independence would be the panacea for all the ills of the body politic. The wrongs under which the colonies labored had been charged to the representatives of the Crown; and with the achievement of independence it was fondly hoped and believed that the reign of justice had begun. The condition of things, however, instead of improving became worse. The injustice of Spanish government was succeeded by other evils of domestic origin.

As a rule the Constitution of the United States was taken by the blood-born republics of Spanish America as the model by which to shape and fashion their forms of government. The application of its provisions became, however, a travesty on justice. Force, intrigue, and violence were in effect substituted for the legislative, executive, and judicial powers of government. In Mexico, Iturbide was proclaimed emperor, was then deposed and banished, and upon his return to the country was shot with but little attention to the forms of law. Then was inaugurated a series of revolutions which continued almost without interruption until Porfirio Diaz, raised in an atmosphere of revolution, seized by means of a revolution the reins of power, which he has held for more than twenty years, to the material benefit of his country rather than to the evolution of true democratic ideals. The history of Mexico is but a replica of the history of Peru, Venezuela, and most of the other Latin republics of America. The wars which have so retarded the development of these fertile lands grew, in almost every instance, out of personal ambition, and were not occasioned by the advocacy of great principles of government or in defence of human rights. The interpretation of a constitution never reddened a Spanish battle-field or changed the course of history. These conflicts were the mad struggles of ambitious and strong men for supreme power. One of their own poets has described the condition which usually obtained by saying of his land:

"Cada año un gobernante,
Cada mes un motín."

This may be freely rendered:

"Each year a constitution,
Each month a revolution."

All these republics, owing to their Spanish training, have been of one mind as to customs tariffs, and have made commerce bear all the burdens it could possibly carry, both for the purpose of producing revenue and for the advantages this system gave to those who had an opportunity to evade the exactions of the customs collector. An honest and efficient customs administration cannot be found in any Spanish country on earth. "Entre los amigos no hay ley" — among friends there is no law — is one of the proverbs of the Spanish people, and it would not be a bad inscription to place over the portals of their custom houses.

Not only are customs assessed upon goods entering the country, but there are also state or provincial tariffs, as well as municipal tariffs; so that a shipment of merchandise to an interior city must pay a federal tariff, a state tariff, and a municipal tariff. This, of course, calls for a large civil force, and the expense of collection is by no means small. The new Cuban constitution has no provision for the free interchange of commerce between the provinces of the island; and should they follow the lead of other countries of like origin, an effort will be made to secure funds for provincial and municipal expenses by means of local tariffs, which will operate against the development of the island, and add enormously to the cost of the administration of government.

Unlettered people have never been successful in guarding their liberties, but have become the prey of ambitious leaders who have ruled by passion or force. The masses of the Spanish-speaking people of America are not educated, and their high percentage of illiteracy is a sad comment on the lack of interest taken by the respective governments in the education of the people. This was originally an inheritance from Spain, where illiterates are in the majority. Cuba, having been so long under the rule of Spain, has about the same record, which is not very different from the condition of other Spanish-American countries. In the republics already established the difficulty was originally chargeable to the mother country; but now, after they have been independent for almost a century, with no marked advance in the direction of general education, the conclusion is that a true conception of the importance of education has not been grasped by the rulers of these lands. The truth is that these countries are making a ghastly play at government. General education is not necessary in a despotism, whether royal or military. By these people any general scheme of public instruction is looked upon as an ornamental adjunct of government, rather than a necessary part of it.

While prolific of constitutions the Latin republics of America allow none of them to endure long enough to acquire a respectable age. In the adoption of the fundamental laws of other lands they are inclined to seize upon what is superficial and spectacular rather than upon those principles which lie at the basis of liberty, security, and order. The desire to rule makes the brave Latin-American follow many a Don Quixote, as did Sancho Panza, upon the promise of an island to govern. The very bravery and daring of the Spanish character, prone to act without counting the cost or foreseeing results, are breeders of revolutions.

If the natural wealth of a country were a measure of its stability there would be hope for Cuba; but Cuba was rich before the revolution. The exports per capita in 1897 were $63.10, far larger than the exports of any Spanish-American republic. Uruguay exported $41.00 per capita, Costa Rica $25.00, the Argentine $24.20. The per capita exports of Cuba outranked those of Great Britain, and Great Britain outranked all other civilized countries of the world. Cuba under Spanish control had a greater wealth per capita than the States of Virginia, North Carolina, South Carolina, Georgia, Tennessee, Alabama, Mississippi, Louisiana, or Arkansas; but this very wealth, actual and potential, is an element of danger rather than security for the stability of the future republic, for it has been productive of prodigality rather than prudence.

According to the census of 1899, taken under the direction of the United States, the rural property of Cuba was valued at $184,724,836, on which rested a mortgage indebtedness of $106,897,249. In other words, it is mortgaged to about 60 per cent of its full value. The town property makes even a worse showing. It is valued at $138,917,059, and is mortgaged for $100,729,943, almost 80 per cent of its full value. With the relinquishment of United States control in Cuba, one of the first problems the new government will have to face will be to make some arrangement for paying, scaling, refunding, or repudiating this enormous indebtedness. Owing to the distress and disturbances caused by the war, mortgage foreclosures and even interest payments thereon have been stayed by military orders. This cannot be continued any longer; but foreclosure proceedings now entered upon can be continued under some of the many *recursos* provided by Spanish legal procedure until Cuban legislators, Cuban courts, and Cuban executives dispose of the question of mortgage indebtedness. As the money was loaned chiefly by foreigners and borrowed by Cubans, it is the creditor rather than the debtor who is walking the floor and wondering where the money is to come from to repay the legal and just debt.

Spanish people, as has been remarked, have always been inclined to place the burden of government on commerce. No just or equitable system of land tax has ever been enacted or enforced by them. Their tendencies have been to tax necessities, and bear lightly upon luxuries. The customs tariff, as made and collected by the United States authorities in Cuba, is producing a revenue of about $15,000,000 per annum, from which provision is promptly and easily made for the expenses of government, the public school system, sanitary measures, and public improvements. With the change that will follow complete independence many additions to the annual budget will have to be made.

It will be necessary to pay salaries to a President, a Vice-President, Cabinet officers, collectors of customs, a diplomatic corps — for Cuba will want a minister at every important capital — and a consular service. Cuba will have to provide also for a Senate and a House of Representatives, as it has been arranged by the new constitution to have four senators from each province of the island and a representative for every 25,000 of the population. The school system ought to be extended; and as there is almost a dearth of school-houses, the bulwarks of a republic, large expenditures should be made for such buildings. The "Army of Liberation" will clamor at the doors of the Cuban Congress for back pay, bounties, and pensions, calling for an amount which no man can estimate. The bonds issued by the Cuban Junta during the revolution, the amount of which has never been made public, will demand recognition, together with their unpaid interest coupons. With the general government, the provinces, and the municipalities free to grant concessions, to make loans, and to contract debts, and with a very natural desire to have some ready cash, it is to be feared that obligations will be assumed the total amount of which will reach a startling sum.

The first steps of a new government are of supreme importance to the future welfare of the country. A man brave and successful in the field is not necessarily a wise statesman; and there is nothing in the recent history of Cuba that leads her thoughtful friends to indulge the hope that the successors of such men as Felix Varela, Escobedo, Domingo Delmonte, Pozos Dulce, José M. Heredia, José de la Luz Caballero, José Antonio Saco, Morales Lemus, Echeverria, and J. M. Mestre either live in Cuba to-day, or that, if there be such, they will have part in the councils of the new republic.

As already stated, the tariff produces about $15,000,000 annually; but this large income reaches the treasury of the island through American administration of the customs. When the new republic takes hold, it

is to be feared that even under the same tariff rates nothing like such a sum will reach the treasury. Spanish training militates against spotless integrity in the administration of the customs. The new constitution fails to make any provision forbidding the establishment of customs duties between the different provinces of the island, or even between the cities of the same province; in fact, the constitution rather invites and anticipates the establishment of provincial and municipal custom houses as a means of raising revenue for the expenses of those political divisions of the country. This is the practice of nearly all Spanish countries; and the result in Cuba will be to make the cost of imported merchandise so great that consumption will be reduced to a minimum, to the serious detriment of the federal or insular revenues. In this manner the fiscal conditions attendant upon the exercise of sovereignty by the new republic will be further complicated.

It is to be feared that Cuba is not in hearty accord with general education to the extent of devoting the necessary sum for its support. The sanitary measures which have been enforced, and which, according to Article V of the Platt amendment, Cuba promises to continue and to extend, do not receive the conscientious support of the Cuban authorities. A perfunctory compliance with sanitary and quarantine regulations will invite *ante bellum* conditions, and may give rise to differences between Cuba and the United States.

The rock on which it is most likely that Cuban independence will be wrecked is the solemn promise not to contract or recognize any debt beyond the ability of the resources of the island to meet. It is a well-known fact that a borrower is optimistic as to his ability when seeking a loan, and pessimistic when interest accrues and notes fall due. Cuba lives, moves, and has her being in sugar and tobacco. Without a market these products are worthless. The rapid development of the beet-sugar industry is making it more and more difficult to find a market for the tropical cane product. Cuba can no longer look to Europe for a market for her sugar. She therefore turns to the United States. A prenatal cry of the Cuban republic is for reciprocity arrangements between the two countries which will insure for her sugar an American market on terms more favorable than are granted by the tariff at present existing. For any such arrangement to be genuinely reciprocal — and this is a matter of business, not charity — Cuba would have to admit on very favorable terms a volume of American goods sufficient to offset the advantages secured by the admission of her sugar and tobacco. This would make a serious cut into the customs revenues of

the island, and would tend to widen the gap between the budget and the receipts.

There is grave danger that the experiment of the independent government of Cuba by Cubans will have the following results: The revenues will decrease and expenses will increase; projected improvements, absolutely necessary for the development of the country, will languish; schools will be neglected; sanitary measures will not be intelligently prosecuted; and the country will retrograde. These things may now be predicted with some degree of confidence without assuming that rival parties will raise the standard of revolution, as has so often happened in every Spanish country in America. The latter possibility has been scarcely mentioned in treating of the Cuban question, as if it is a matter which time alone can develop; but as every one of the fifteen Latin-American republics has had many domestic revolutions, the conclusion is reasonable that Cuba is not free from the same tendency, and may in the near future appeal to the bayonet rather than the ballot to decide presidential contests. The President, under the Cuban constitution, will have almost supreme power in the distribution of patronage, even in the provinces. The government will be a central one, and the provinces for governmental purposes will have a nominal rather than a real existence. Conservative Cubans, with large interests in the island, urge the speedy establishment of independence, not because they have confidence in its permanency, but because they see that the trial must be made; and they look upon it simply as a necessary step to final annexation or control by the United States.

The joint resolution of Congress will withdraw the American forces from Cuba, but the Platt amendment will sooner or later send them back with more serious problems to solve and a large debt to provide for. It is the custom among nations for the conqueror to impose an indemnity upon the conquered, as was done recently by the Western Powers in the case of China; but the United States, the conqueror in the late war, paid an indemnity to Spain, returned her soldiers to their native land, clothed the naked, nursed the sick, and assumed the payment of the losses of her own citizens which arose from the war, asking no money indemnity from either Spain or Cuba for the enormous cost of the Cuban campaign. Neither has Cuba expressed any sense of financial indebtedness to the United States for the expense incurred in driving the saffron flag of Spain from American soil and American waters. The end is not yet.

EDMOND WOOD.

THE UTILIZATION OF WASTE.

LIEBIG relates that when he was a young man, a manufacturer of Prussian blue, who was showing him through the works, drew his attention to the great noise made by certain comminuting and mixing machines. These machines consisted of large iron mortars in which iron pestles were actuated by machinery. The pestles pounded the materials to a fine condition and mixed them. On Liebig's suggesting that some means ought to be devised to prevent the terrible din made by the machines, the manufacturer told him that it was a singular fact that the more noise the pestles made the better was the blue produced. It happens that in making Prussian blue iron is a necessary constituent of the mixture, a fact which did not seem to be thoroughly appreciated by this manufacturer. He was, therefore, much surprised when Liebig told him that the iron which was necessary to produce the color was being rubbed off his machinery — a most extravagant way to supply it. He understood for the first time, however, why it was that the greater the noise from the friction of the pestles in the mortars, the better was the blue produced. He thus learned in an expensive way that it was better manufacturing to put iron into the mixture than to grind it off high-priced machinery.

In an experience with manufacturers extending over twenty-five years I have seen a good deal of this kind of blue manufacturing. In fact, I have seen manufacturers carrying large stocks of various kinds of blue; but in the majority of instances a dose of chemistry properly applied has removed their difficulties and turned losses into profits.

It is evident that if a certain raw product yields 1,000 pounds of a finished product and 100 pounds of a substance that is not salable and has no use, this valueless product, or waste, has still to be handled, dumped, or conveyed away, as the case may be, and that all this means expense. It may accumulate in unsightly piles, may pollute the air, may choke up or contaminate streams, or may occupy valuable ground. The cost of handling it is charged to the main product. If this 100 pounds of valueless waste can be converted into something which has a commercial value, then the returns from the sale of this article reduce

the price of the main product by distributing the cost of production. It is also evident that if two manufacturers are making the same article, and one can get a price for a substance which in the other man's process must be reckoned as a valueless waste, the competition between them may be fierce, but it will be brief.

As soon as chemists were permitted to study manufacturing processes they began to invent methods of recovering substances of commercial value from the immense quantities of waste products daily produced; of increasing the yield of products; of increasing the purity of products; and of decreasing the cost of manufacture. A mere mention of the work done on these lines would fill volumes, but a reference to some of the cases may prove interesting reading. I will outline particularly some of those connected with the utilization of waste; drawing attention to applications which have been suggested as well as to those which have been technically introduced, and not omitting such inferences and relationships as may appear worth being recorded.

It is customary for writers on this topic to dilate on the truly marvellous instance of the utilization of coal tar. This fact has been emphasized so often that I shall take it for granted that my readers know that this offensive tar, which was once a waste and a nuisance, now yields on distillation a series of products each of which serves as a starting-point for a long series of valuable substances, including the beautiful aniline dyes, perfumes, medicaments, antiseptics, and what not. From the former waste product has grown up an industry in which many thousands of persons are employed, and many millions of dollars invested. It is, however, a matter of regret that although this country is an immense producer of coal-tar, and exports large quantities of tar distillates, and although the processes for making coal-tar derivatives are almost all patented here, the manufacture of them has yet been but little developed in the United States. It is a question if it is good business policy to protect by a United States patent a product which is not manufactured in this country, and on the importation of which a duty must be paid.

Garbage represents a waste which is usually very much in evidence. In civilized communities it is separated from the ashes, and hence is in a condition for utilization. Instead of being a waste and an unmitigated nuisance, garbage may now be converted into several valuable products. The most successful treatment consists in heating the garbage with water and chemicals until it is converted into "soup," removing the grease by means of raising and centrifugal apparatus, evaporating the "soup" to

solid form, and grinding it. All the gases given off during the evaporation of the "soup" and the treatment of the garbage are burnt, and are thus utilized as fuel. The grease is of good quality, and finds a ready market. When purified, it can be used in making soap. The dried substance is sold as "tankage;" and as it is rich in ammonium salts, nitrogen, and phosphates, it commands a good price from the manufacturers of fertilizers.

City refuse is burnt in especially constructed furnaces. The heat produced is utilized to make steam for power or heating. Electric light and power plants are run by heat derived from the burning of garbage, and certain electrolytic chemical processes could also be run, if desired, and used to purify the drinking-water, as well as for other purposes. From the ashes a cement is made. In fact, a well-managed community ought to make its garbage and refuse pay for its removal and for some other things as well. A successful process for separating fine coal from city ashes would find a profitable opportunity in large cities. The amount of fine coal which at present is lost in the ashes of New York is estimated at from 600 to 1,000 tons a day.

The utilization of cesspool matter has been successfully worked out in the city of Augsburg. The material is treated with acid, and dried to a powder, which forms a valuable fertilizer. The value of the available nitrogen contained in this material annually lost in the city of Munich alone has been estimated at $500,000. This waste might well be worked up to replace some of the millions of dollars' worth of Peruvian guano imported yearly into Germany to manure the soil. The city of Antwerp once paid $5,000 a year to get rid of its refuse. Later on it received $200,000 a year from the same refuse; scientific men having found ways to utilize it. It was calculated in 1872 that the annual loss of valuable material through the sewers of the United States equalled a sum sufficient to pay half the interest on the national debt. This matter, however, is not altogether lost, for it is to some extent assimilated by marine life.

Waste soapsuds constitute another immense amount of material which flows from the textile factories in great streams, polluting rivers and making no end of trouble. As an instance of how this can be worked up, the yarn mills at Mülhausen may be cited. The soapsuds are precipitated with lime, and the coagulum is collected, pressed into bricks, dried, and heated in gas retorts. A gas is obtained which has three times the illuminating power of coal gas. Nearly twice as much gas can be produced as is required to light the factory. Other utiliza-

tions have also been made of waste soap liquors, such as the production of lubricating oils, fat acids, and soaps. A vexatious waste was formerly that of the liquors from making soap, which contain, among other substances, glycerine. Although the extraction of the glycerine from these waste liquors was beset with technical difficulties the problem was finally solved.

The extraction of grease and fat from dead animals and offal has also been brought to a high state of perfection. The carcases are placed in large receptacles and treated with benzine. On the evaporation of the solvent the crude fatty matters are obtained, and on purification these yield excellent materials, which appear later in the form of soap, lubricants, oils, etc.

The methods of working up some of the apparently waste objects are full of interest. Few people think of what becomes of the hundreds of horses which die every day in the streets of a large city. Practically no part of them goes to waste. I quote the following disposition of a dead horse from Simmonds:[1]

Hair: used for hair-cloth, mattresses, bags for crushing oil seeds, plumes, etc.
Hide: used for tanning and covering tables, etc.
Tendons: made into glue and gelatine.
Flesh: boiled for food for cats, dogs, and poultry.
Blood: used in manufacture of prussiate of potash, and manure.
Intestines: used for covering sausages.
Grease: used in manufacture of candles and soap.
Bones: used in making knife-handles, manure, phosphorus, and superphosphates.
Hoofs: made into pincushions and snuff-boxes when polished, or used for making glue, gelatine, and prussiate of potash.
Shoes: sold for old iron.

Some of the bones are also converted into bone charcoal, which is largely used in bleaching sugar and in medicinal substances.

Bones are used for a great variety of purposes, including the manufacture of bone char for bleaching, empyreumatic oils, tallow, black pigment for painting, shoe-blacking, and filling sheet rubber for overshoes, bone dust for manure, sulphate of ammonia, cupels, vitrified bone for use in opal glass, aside from the manufacture of knife-handles, combs, fans, buttons, etc. Bones also furnish gelatine and glue, and are the starting-point for the manufacture of phosphorus.

Rats offer a great opportunity to some one who has the knowledge and business ability to raise them. They breed easily and rapidly, and will live on garbage and offal. Their skins make a leather tougher than kid, and grace the hand of many a woman who would scream at the

[1] "Waste Products and Unapplied Substances," p. 56.

thought of a rat about her. Their fur is used by hatters, and is said to be more delicate than the beaver's.

Mastiffs furnish a good leather for boots, shoes, and riding-gloves, while the skins of small dogs and cats make a good white glove leather. Dogs, when rendered, yield a fat which is used in dressing certain kinds of glove leather. Cat's fur figures under various fancy names for women's garments.

Waste human hair occurs in larger quantities than one would suppose. In 1872 human hair to the extent of 100,000 pounds was imported from China into Marseilles. Waste hair is largely used as a manure. Heavy cloth and shawls have also been made from it. It can also be used in the manufacture of prussiate of potash, and indirectly in the production of Prussian blue. Eventually more or less of the hair finds its way into fertilizers.

There are many instances of published experiments in the utilization of waste which read as if they were intended to be facetious, although the investigators are wholly in earnest. One chemist made a wine jelly out of old boots, and was enthusiastic about it — more so, probably, than those who partook of it and did not learn the fact until later. Another converts old shirts into glucose, ferments it, distils off the alcohol, colors and flavors it, and produces a fine grade of whiskey. Another scientific experimenter feeds his whole family with cakes containing a large amount of powdered sawdust, and is pleased to find that the diet is relished and digested.

Speaking of sawdust, it is a singular fact that in the United States this waste has been allowed to accumulate in various places until it has become a nuisance, especially when it has been allowed to run into rivers and choke up the channels, disfigure the shores, and in other ways make trouble. Although there are not a few methods of utilizing sawdust, but little attempt seems to have been made in this country. The amount of sawdust produced has been reduced by the displacement of the circular saw by the band saw, which makes much less dust. There is, however, plenty of sawdust produced, and as a rule it does not find any application. In view of this state of affairs, a brief mention of some of the utilizations of sawdust will be of interest.

The first use, as would naturally occur to any one, is to burn it. Several special forms of furnaces have been invented to do this efficiently. In some cases the sawdust is dried before it is burnt, while in others it is dried in the furnace in which it is burnt. It can also be mixed with coal slack, spent dye-wood, turf, peat, etc., and compressed into bri-

quettes, which allow it to be sold for use in place of coal. As coal is often very highly priced in regions where sawdust is produced, there is an opportunity for a large profit. By the dry distillation of sawdust all the distillation products of wood are obtained; and this manufacture can be conducted as an adjunct to the working of wood in a way to insure a profit. The products obtained are gas, wood alcohol, acetic acid, tar, and oils. From the tar there have been obtained benzole, toluole, zymole, cumole, paraffine, naphthalene, and hydrocarbons which are used in the manufacture of aniline colors. Carbolic acid and creosote are also obtained. As a last product charcoal is left in the retorts.

By sieving out the coarser particles, mixing the remainder with various fillers and agglutinants, compressing, and heating, some very interesting materials have been made, in the way of artificial wood, plastic masses, etc. Such a material was brought out by Latry in Paris, and was made from prepared sawdust and blood. It formed a hard, black substance, which could be tooled and machined like wood. It took a high polish, and could be glued, lacquered, and gilded. Imitation marbles have also been made from the fine dust of certain woods and the dust of ivory and similar waste. A mixture of sawdust and phosphate of lime with a binder has been used as a material for taking casts of sculptures, and has been called "Similibois." Slabs for parquet floors have also been made from sawdust, as well as plates for bas-reliefs, art castings, panels, and decorations. Terra-cotta lumber and artificial lumber are both instances of the utilization of sawdust. Sawdust compositions have also been used for sidewalks and dinner plates.

A long list could be given of explosives and varieties of gunpowder that have been made from sawdust. In some the sawdust is used as an absorbent, as with nitroglycerine, in others as a filler, while in still others it is converted into forms of pyroxiline. By heating sawdust with caustic alkali and sulphur, a brown dye is obtained which is cheap and fast, resisting both acids and alkalies, and dyeing cotton without a mordant. By heating sawdust with caustic alkali, oxalic acid is formed. A large amount of the oxalic acid on the market is made by this process.

There are still many other uses for sawdust. It is used to sprinkle on floors, to assist in sweeping, as a filler for fertilizers, for packing, etc. Soft-wood sawdust, mixed with slaked lime, makes a mortar which has been used for decoration. Several inventors have used mortars containing sawdust for stucco and wall finish. Mixed with cement and plaster a mass is produced which has a most remarkable insulating power against heat and cold. The spaces between the floors and walls in many of the

large city structures are filled with mixtures of this nature. The material known as "Sciffarine" is made of sawdust, hemp fibre, starch, glue, and filler. It is very hard and elastic, and takes a high polish. By heating pine and fir sawdust with water and a little muriatic acid under pressure, the cellulose is converted to some extent into grape sugar, and this can be fermented. In this way brandy free from woody or turpentine odor or taste, and of excellent flavor, has been obtained from sawdust.

An ingenious use for sawdust is to mix it with clay or other non-combustible material and then burn the sawdust out, leaving a porous mass. In this way are made the alcarrazas, or porous flasks, which are used by the Arabs to cool water by evaporation on the outside. Porous bricks made in this way form walls which are admirable non-conductors of heat, as they are filled with air cells, thus utilizing the well-known non-conducting property of air. On account of its porous and consequently non-conducting nature pumice-stone was very popular with the Romans, who, when the supply of it gave out, made porous bricks by mixing clay with materials which were destroyed during the burning. Construction with porous material of this kind is not only fireproof but is very light; and hence structures can be erected on foundations which will not bear a heavy load. A mixture of sawdust, cement, and sand forms a mass which is unsurpassed as an insulating filler for walls and compartments. Certain kinds of sawdust can be pulverized and used in the manufacture of paper. Attempts have been made, but not with entire success, to make out of sawdust a substitute for cork. An excellent illuminating gas can be made from sawdust. In fact, in some localities there is enough sawdust produced to make all the gas required for the whole community, both for light and heat.

A most interesting waste product to the chemist and engineer is the slag from iron blast furnaces. Immense deposits of this material exist in various parts of the world, awaiting utilizations extensive enough to afford an outlet for them. Many attempts have been made in this direction. Some of them have been successful, but they have not as yet made much impression on the immense output of slag. Slag wool is largely used for a non-conducting and fireproof filling in construction. It is made by blowing a current of steam through a stream of melted slag. The slag is broken into little drops which fly through the air like comets, and leave a long tail, or filament, behind them. These tails constitute the slag wool. On baking this slag wool a material is formed which, it is claimed, can be used in the production of porcelain. Bricks and building stones have also been made out of slag. The use of slag for

road-making is a very attractive one. As slag is a kind of glass, chemists have tried for years to modify it so as to convert it into some form of glass for which there is a large demand, as bottle glass. It is believed that very recent discoveries have made this possible in a practical degree.

In certain foreign works the heat in the slag was utilized in an interesting way, which if it had been devised in this country would have been designated as pure Yankee ingenuity. The slag was cast into slabs, and, while red-hot, was placed in receptacles in the form of travelling bags, but made of insulating material. The workman carried this home with him, and placed it in a stove made to hold the slab. In this way he got his heat without cost. The escape of heat through slag is very great, and but few attempts have been made to utilize it. Water can be boiled with it, air can be heated with it, perhaps even steam boilers might be kept going with it. Slag has also been used in making tiles, building blocks, bottles, and cement.

The immense quantity of waste gases from the iron blast furnaces was once the cause of much annoyance. It represented also a loss in heat which kept the cost of iron at a figure so high as to limit its use in many ways. Means were invented to utilize this waste in heating the air used in the blast. An immense saving was thus effected. The gas, after being thus used for heating purposes, will burn when mixed with air, and in Europe this mixture is now being used to make power. It is evidently quite inconsistent for a manufacturer to throw away large quantities of combustible gas and then buy coal to do what could be done with the gas he wastes. And before burning the gas there are some constituents which might be extracted in a way to bring about a still greater saving in cost.

The utilization of skim-milk in recent years is a good instance of the practical benefits of scientific investigation. The introduction of the Delaval separator made it possible to separate the cream from milk in a far more practical and perfect way than had been possible before. But while this aided the butter industry, there was produced a large amount of skim-milk which had little value, and, except to serve as food for hogs, had but few uses. This skim-milk contains, however, casein, albumen, and milk sugar, and can also be used in the production of lactic acid. The result of experiments has been the development of a large industry in manufacturing from the products of skim-milk coatings and sizings for paper, waterproof glues for wood veneers and other purposes, paints, substitutes for hen's eggs, hard rubber, horn, etc.

The working up of old textiles arouses many thoughts in one's mind as one sees the shop windows filled with cloth at low prices. The old clothes, consisting of mixtures of cotton and wool fibres, are exposed to the effects of various chemicals in a heated condition. The cotton fibres are thus disintegrated and when the fabric is beaten the cotton is reduced to dust and can be blown out, leaving the unchanged wool fibres. This wool is then washed, bleached, and dyed, reappearing in overcoats and many forms of cheap dress goods. The product is known in the trade as "wool extract." How many times these overcoats, trousers, vests, coats, skirts, and what not wander through the "carbonizing chambers" to reappear as new fabrics none can say. The cycle is really endless; because after the cloth has become gradually lost during its travels, or becomes too degraded even for the "carbonizer," it is converted into fertilizers, or finds its way to the soil, and so in due time reappears to a greater or less extent as wool on sheep and cotton in the boll.

To what strange uses are some materials put! Some years ago there was quite a run on dress buttons made out of blood. I do not suppose that the fair women who wore them ever dreamed of their source. It is perhaps not well to ask too many questions about the origin of things; but nothing shows more ability to grasp scientific knowledge and apply it than success in converting some worthless substance into something that is useful and valuable. But to be able to utilize waste one must have not only a thorough knowledge of the properties and changes of matter, but also a wide acquaintance with the practical applications of substances in all branches of industry; for the waste of one manufacture may be of great value to an entirely different manufacture. To find that out demands the possession of a far more extensive and intimate knowledge of technology than is usually possessed.

Some of the applications of waste are very unexpected and surprising to one not versed in this kind of work. All sorts of fantastic thoughts may be evolved in this study. Artificial pearls are made from fish scales. The old paper collars, so popular in parts of the West, find themselves again in paper. The old coffee pot is chopped up. The good parts of the metal are used for making the metal corners on trunks. The rest of it may appear as copperas, the useful mordant, or in ink. My lady writes tender sentiments to her lord with ink made from an old coffee pot, on paper made from old collars or shirts. The offal, intestines, and useless odds and ends of animal life all come handy in the production of Prussian blue, which again is the base of the greens used in paint. Bones, too, are admirable examples of queer changes. Out

of bones are made phosphoric acid and acid phosphates, and from these again come some of the kinds of baking powder. Again, from these bones is made phosphorus. Among the various uses of old newspapers is the manufacturing from them of paper boards from which paper boxes are made. Old rubber shoes and bicycle tires are ground up; and the rubber is extracted and started again in its cycle.

Deposits in wine casks consist of argol, or crude bitartrate of potash, which, when purified, becomes the cream of tartar which is so popular in baking, and from which tartaric acid is made. How many of those who so earnestly oppose the use of wines, brandy, and the fermentation products of the grape understand that in using cream of tartar in raising biscuit and cake, or in wearing the innumerable fabrics dyed with tartar mordant, or in drinking effervescent salts containing tartaric acid, they are materially aiding in the support and development of the wine industry by maintaining a demand for the products of argol, which is one of its side-products? To think that persons who have been so strenuous in abolishing the army canteen should themselves be actively assisting in cheapening the cost of wine, and thus popularizing its use! Truly, where ignorance is bliss, it is folly to be consistent. If the beer industry did not supply brewer's grains at a low price for cattle food, the teetotaler might have to pay more for his milk. If the wine industry did not make a large demand for corks, where could be obtained the cork waste which serves as the basis for the manufacture of linoleum?

The strangeness of these transformations of matter is not always realized by those not familiar with chemistry. Matter is continually passing through its endless cycle. An overcoat may have in it the remains of ball-dresses and prison shirts. It may have lain on luxurious beds or in the gutters. When our shoes wear out they are made into fertilizers, and produce grass and grain, and from the grass and grain are raised cows, and out of the cow's skin we make leather again. So we have the shoe back again, less that portion of it that has been consumed as milk and beef. Nothing is really lost in Nature. Give the ground filth it returns us the flower. Matter is in eternal circulation. "Give me the sewage of New York City," says Dr. Long, "and I will return you yearly the superior milk of 100,000 cows."

I might go on for many pages telling about the waste products in manufacturing, and explaining how many of them have been utilized, and how some of them have become so valuable that they have given rise to new industries, and hence have passed from waste to raw products. Many extraordinary and unexpected relationships might be pointed out

between articles of commerce, and many a singular inference drawn; but the really great lesson which I wish to teach is that in the present state of science there ought to be but very little waste. A waste product, like dirt, is matter out of place, and represents a pecuniary loss; for the matter going to waste has been bought and paid for.

To make the waste valueless the value of the material in it has to be charged for in the products sold; thus holding the price up and restricting the sales. Some of the energy and money spent in the selling of goods would show better results if spent on the reduction of the cost of making the goods which would come from a proper utilization of the waste. Finding a place for this matter out of place at once gives it a value, and takes some of the load from the cost of manufacturing the chief products. It is, therefore, a matter of great interest to the manufacturer to keep a sharp eye on his waste and to lose no opportunity to find ways to utilize it; always bearing in mind that waste is matter out of place, and that in some other branch of industry that particular form of homeless matter has a place. In fact, one manufacturer often buys what another throws away. PETER T. AUSTEN.

FINLAND'S PLIGHT.

AWAY up in the most northern part of Europe a large and powerful nation is seeking to destroy and exterminate a small people. We have of late become accustomed to the spectacle of large nations making war upon and swallowing nations much weaker than themselves; but in most cases the stronger power could claim with some semblance of truth that its own was the higher civilization, and that the conquest and ultimate subjugation of the weaker nation would work for the spread of civilization, the benefit of commerce, the good of industry, and ultimately the welfare of the conquered. In the case of Finland, however, no such pretence can be made. In point of culture, civilization, commerce, industry, and all other civic virtues, the Finns are far ahead of the Russians, and their fight for national existence is also a fight of civilization against perfidy and brutal force. In spite of the denials of official Russia, the fact that it aims at nothing less than the total extermination of the Finnish nation is apparent to any one who compares the conditions of to-day with those of, say, five years ago. Not long since, General Bobrikoff, the Russian Governor-General, paraphrased Metternich's famous saying concerning Italy, and declared that "Finland is merely a geographical conception." While this is by no means the fact at present, it is certain that if Russia continues to deal with the Finns as she has dealt with them since 1898, Finland will soon cease to be more than a mere "geographical conception."

It is needless at this date to enter into a discussion of the constitutional questions involved. Professor Rudolf Eucken has shown the merits of the case clearly and precisely; his article[1] is an excellent and eloquent document proving the perfidy of Russia. But the optimistic hopes expressed by Professor Eucken have not been fulfilled. On the contrary, things have become worse, and the outlook to-day is darker than ever.

What has Russia done during the last two years? First and foremost, by an imperial edict of February 3 (15), 1899, Finland ceased to

[1] See THE FORUM, for November, 1899.

be a Grand Duchy and became a Russian province. By the same edict the Finnish Diet was shorn of all its rights and powers; for in the above-cited ukase the Czar declared: "We have found it necessary to reserve to ourselves the ultimate decision as to which laws come within the scope of the general legislation for the Empire." At the same time the Governor-General of the newly made province received the right to veto any or all laws enacted by the Legislature. And although the Diet meets, it has practically become utterly impotent; the Legislature is not allowed, either by the authorities in St. Petersburg or by the Russian Governor, to act even in an advisory capacity.

What this means to Finland is easily seen. From a self-governing country it has become a satrapy, ruled by the orders of a governor and edicts from Russia. The first shock that brought this knowledge home to the Finns was the imperial edict concerning the reorganization of the military system. Instead of being a national militia, commanded by Finnish officers and not to be used outside of the country without the consent of the Legislature, the Finnish soldiers have been declared to be a part of the Russian army. Russian regiments have been stationed in Finland; while the Finns must serve under Russian officers, must obey commands given in the Russian language, and are sent to all parts of Russia proper. Grievous as all this is to the Finns, it is only a small part of the injustice done to them in connection with military service.

The number of men to be drafted annually has been quadrupled by the Russian authorities. Finland is required to furnish annually 7,200 men between the ages of twenty and twenty-two. These men must remain in active service for five years at least, after which they belong for thirteen years to the reserve force. A very little calculation will show that what Russia exacts is almost an impossibility; for that demand means nothing less than that out of a population of perhaps 2,500,000, as many as 36,000 should be constantly doing active military duty, while 93,600 more should participate once in two years in manœuvres and drills for the length of six weeks.

It is easy to see what an effect this requirement must have on the industries and agriculture of the country. Practically every able-bodied man is drafted into the army, and is kept from any useful occupation for fully five years. We may overlook the misery and frequent tortures that have to be endured during this time; we may even pass over the fact that five years of enforced uselessness unfit a man to follow with any success the occupation or trade he has learned in his youth; nay, we can go even further, and leave out of consideration the toil which is

required from the producers in order to clothe and feed the army. It is sufficient to say that a country whose soil yields only to concentrated and steady labor cannot have 36,000 young men taken away from its scarce population and remain prosperous. And it is a fact, admitted by the Russian authorities themselves, that the industries and agriculture of Finland have suffered very much. Indeed, for the first time in the history of Finland the population is at times actually in distress from hunger, a condition which was totally unknown as long as the country was self-governing or was a part of Sweden, in spite of the fact that its crops have failed occasionally.

Another direct result of the Russian exaction in connection with the military service is a large emigration of young men in order to escape the hardships of the service. The Finns were never a migrating race until the Russians became their masters. From practically nothing the number of young men who left the country rose to 16,000 in 1899; and in 1900, in spite of the fact that the emigration of men liable to military service has been forbidden under the severest penalties, not less than 36,000 of them emigrated. It has come to pass that some counties, like Wasa and Uleåborg, for instance, have retained only their old people, women, and children; all the able-bodied men having gone to seek more favorable conditions in Sweden, Canada, and the United States. The larger the number of emigrants grew, the more stringent became the laws forbidding emigration. No young man above the age of sixteen is now allowed to leave the country, in any circumstances. In theory a family can emigrate if none of its members is subject to military service; in practice, however, this permission is not granted except to old people. As a natural result of this state of affairs, the straightforward, honest, truthful Finn has been compelled to take refuge in lies and subterfuges in order to elude the authorities.

In vain did the Finnish Estates protest against the unjust burdens of the military laws. The bearers of a monster petition to the Czar were informed that if they knew what was good for them, they would return immediately to their homes without trying to see him. Similar treatment was received by a number of men of science who travelled to St. Petersburg on a similar errand. The Diet was curtly told that if it repeated its protestations, it might be abolished, and that it must confine its attention to local and economic questions.

In February, 1900, the representatives of all four Estates declared that they would never give up their constitutional rights of self-government. For answer they received the ukase of June 14 (26), which de-

creed the introduction and use of the Russian language in all official departments and public offices, beginning with the office of the Secretary of State, including the Senate, and gradually extending to all offices and officials. The result of this edict was exactly what the Russian authorities expected. The Senate, without whose promulgation no decree is supposed to have any legal force, refused to promulgate this particular ukase. But Russia has a way of dealing with recalcitrant senators. The Senate was peremptorily ordered to promulgate the order under pain of being abolished. Fourteen of the twenty-one senators resigned their offices, and the remaining seven were not unanimous in publishing the ukase.

Thus has the Russian language superseded the Finnish in the administration of the country. Those Finns who did not know the Russian language or were not willing to employ it became *ipso facto* debarred from holding office, and the vacant positions were filled with Russians. In one instance a Russophile Finlander, Senator von Spåre, accepted office at the hands of General Bobrikoff. Great was the popular indignation in consequence and the newspapers gave their opinions, reflecting really the sentiment of the people. Immediately Bobrikoff gave his answer. Von Plehwe, one of the Russian senators, and a notorious Pan-Russian, was appointed Secretary of State for the "Province of Finland," an office that had never previously been held except by natives of Finland. With the advent of Von Plehwe came a regiment of Russian gendarmes "to help, and, if need be, to supersede," the native police in and around Helsingfors. Then came the suppression of every newspaper and magazine whose editor and proprietor would not bind themselves never to criticise any act of the governor, an imperial edict, or the general legislation of the empire. In other words, the Russian censor system was introduced with all its horrors and detestable infamies.

And here again a renegade Finn was found to do the dirty work of the Governor. Senator Yrjö Koskenen, the censor, is at the present time more detested than even Bobrikoff or Pobiedonostseff. The record of Koskenen's doings speaks for itself. Under his censorship there were 375 interferences with the press in 1899, and nearly 1,000 in 1900, as compared with 40 in 1897 and 12 in 1898. But, while particular attention is paid by the Russian authorities to the printed word the spoken word is not neglected by them. The continuance of existing associations and the starting of new societies depend entirely upon the pleasure of the Governor. He has refused to allow the formation of philanthropic, scientific, or literary societies. He has dissolved the Finnish

Medical Association, for instance, and has threatened to extinguish the Finnish Geographical Society. He defends his action by the specious plea that these societies are in reality nothing else but clubs for political agitation. Bobrikoff has gone even further, having long ago prohibited any meetings for the discussion of political or economic questions. In November, 1900, however, on the occasion of Senator Mechelin's sixtieth birthday, a great number of scientists came together to eulogize this distinguished professor of Helsingfors University. Senator Mechelin is a strong opponent of the Russification of his country, and by the force of his logic and by his complete knowledge of constitutional history he has shown repeatedly that there is not a shred of justice in Russia's treatment of Finland.

Immediately after the day when Senator Mechelin had been made the recipient of the congratulations of his fellow professors, scientists, and students, an order came that henceforth all meetings of scientists would be subject to the pleasure of the Governor, and could be held only in the presence of a delegated official. One need scarcely add that spying and informing are encouraged by the authorities, who do not hesitate to tamper with the mail not only of their own subjects, but even of the visiting foreigner, who is looked upon as a suspicious person. In at least two absolutely authenticated instances my own mail was withheld from me. Both letters were sent to me by registered mail from Stockholm to Helsingfors, and neither of them reached me. Upon the sender presenting his claim for reimbursement at the post office in Stockholm, the Swedish authorities traced these letters to the post office of Helsingfors, whence they had disappeared. I will say, however, that the damages claimed were readily paid.

If the traveller is treated in this way, the native does not fare any better. Perhaps it was an isolated and extreme case, that of Juhani Aho, the Finnish writer and lecturer at Helsingfors University. Still it shows how far Russia will go in her desire to exterminate the Finns. Professor Aho wrote a very brief description of what he imagined to be the thoughts of an old militiaman guarding the mass of flowers at the foot of the Emperor's monument. This short piece of fiction appeared in a Finnish magazine, which was promptly suppressed. Professor Aho was forbidden to reprint his story. He disobeyed. He had it printed in leaflet form, and it was widely circulated. One evening he received a visit from two gendarmes, who, without any further ado, compelled him to follow them. It was fully six weeks before information reached his family that the author had been sent "in the administrative way" to

Siberia for the crime of "preaching sedition and inciting people to disobedience to Imperial laws."[1]

The suit of Eero Erkko, Nonni Zilliams, Dr. Axel Lille, Jonas Castrén, and other equally prominent and learned men against Yrjö Koskenen for defamation of character proves that there is no redress from the injustice and wanton malice of the censor. Everybody who listened to the evidence became convinced that right, decency, and honesty were on the side of the plaintiffs. The jury itself found Koskenen guilty of criminal libel. But the Governor-General nullified the findings of the court, and Mr. Koskenen has since risen in the esteem of St. Petersburg.

With the Russian regiments and the Russian office-holders came the Russian church. According to the census, Finland has 2,234,547 Lutherans, and only 45,000 members of the Russian orthodox church, mainly on or near the eastern frontier, where Russia adjoins Finland. Still, no one may hold an office in the higher administrative service who is not a communicant of the orthodox church. Church attendance being compulsory in the army as well as in the civil service, a pretext for importing a large number of Russian priests (*popes*) was readily found. Then followed, as a matter of course, the erection of churches, so that to-day there is hardly any community of considerable size which is not compelled to maintain at least one Russian church and its *popes*. While, however, the authorities can force the Finns to pay the expenses of a church to which they do not care to belong, they cannot compel them to attend the services, and a church attendance of from half-a-dozen to a dozen people is nothing extraordinary. Gradually the church spreads by the conversion of a few people who are lured into deserting the cause of their nation by the expectation and promise of preferment on the part of the authorities, and also by the efforts of paid agitators who go about among the poorer population and tell them that under "Russian law" not only the land but also all accumulated wealth will be divided among the poor.

These agitators travel in the guise of pedlers, and are used for all sorts of purposes. The management of almost all communities is still in the hands of the Finns, and every election returns Finns to office. The method employed to oust these men is very simple. A few "pedlers" are sent into a district, where they begin their nefarious work by inciting people to lawless acts. The Governor, with a great show of indig-

[1] A translation of Professor Aho's story appeared in the New York "Evening Post" for August 10, 1901.

nation, removes the responsible official as incompetent. In his place he appoints a creature of his own; and it devolves upon this individual to harass and embarrass the remaining Finn office-holders until they resign in disgust. Once the local administration and government are controlled by creatures submissive to the Governor, all kinds of methods, including if need be even brutal force, are employed to prevent the Finns from ever regaining their power.

Russia has learned that she cannot count on making Russians of the adult Finns. She is shrewd enough, however, to know that if she can control the educational system of the country she can make of the children whatever she chooses. Following up this knowledge the Russian authorities have begun to "reform" the school system of Finland. How much need there is for such an undertaking on the part of Russia is best shown by quoting a passage from Mr. Henry Norman's "Russia of To-day." Mr. Norman is by no means an opponent of Russia. His chapter on Finland would rather justify the conclusion that his sympathies are with the Russians. Yet this is what he has to say:

"It [Finland] is a land of schools; except upon the Eastern frontier, where the people are still backward, everybody can read and write. The total population in 1890 was 2,380,000, and so far as I can calculate no fewer than 540,412 souls attended school. That is, out of every hundred of the entire population something like twenty-three are actually at school. . . . There are 2,608 university students, including women; 4,723 are at the lycées; private schools educate 7,758; primary schools contain 413,867; 'urban popular schools' give instruction to 25,931, and 'rural popular schools' to 72,901; normal schools are preparing 1,881 teachers, the sexes being of about equal number; and private schools receiving a subvention from the state have 7,785 children."[1]

Does it not look like a satire when Russia "reforms" a school system that produces these results? Russia, where the government has been opposed to education, and where illiteracy is the condition of nearly sixty per cent of the population, intends to "reform" the school system of Finland! No wonder that men and women raise their voices in horror; no wonder that resistance to this movement will be even stronger than to either the reorganization of the army or the changing of the official language. Already the order gradually to substitute the Russian language for the Finnish in all elementary schools shows plainly the reason for this action. Most teachers are perfectly conversant with the Swedish, German, French, or English language, but only a few know Russian well enough to teach in it. Of course, they become at once incompetent in the eyes of the Russian authorities, and are replaced by Russians, who

[1] In "Scribner's Magazine," June, 1901.

instil into the minds of the children the tenets of the orthodox church and the "knowledge" the Russian Government desires they should get. Persistency in this direction — and the Baltic provinces have shown the world that Russia is persistent — will bring the control of the elementary schools into the hands of the ignorant and often drunken *popes;* real teaching will disappear; and the children will degenerate into a nation as illiterate as the Russian.

But it is not only the elementary schools upon which the heavy hand of the Russian Bear has fallen. The high schools, lycées, normal schools, and even the old University itself are becoming objects of attack. In the high schools the time devoted to the study of the Finnish and Swedish languages and their literature has been reduced from twelve hours a week, taking the average of the various schools, to five. Russian, which was only optional for the student, has been made obligatory, and occupies the attention of the students to the extent of more than ten hours a week. Russian history, Russian geography, and the Russian religion, in the sense of the Russian Church, are taught during the hours which were previously devoted to foreign languages, general history, and the rudiments of modern science. Of course all these proceedings can have one meaning only, the forcible Russianization of the Finnish youth. Besides these open methods Russia employs even more repugnant means to reach her aim. To those youths who have studied at a higher institution of learning — a high school or lycée — inducements are held out, in the shape of shorter military service and better treatment in the army, provided they pass an examination in Russian. It is no rare occurrence for a youth of seventeen to be told by some official that he will gain the highest honors and receive an appointment to high and lucrative office if only he will become a member of the orthodox church and continue his studies in a Russian school.

But the old and venerable University of Helsingfors has fared worst of all. Hers is a proud record. She has educated more than her share of men prominent in all branches of science, and she has occupied an enviable position among seats of learning and original research. But now her outlook is dark, indeed. The old time-honored self-government of the University has been abolished. The professors no longer elect their *rector magnificus* from their own number. Von Plehwe, a Russian, a man of no education and a notorious despiser of the sciences, has been appointed Chancellor of the University, with powers almost as arbitrary as those of the Governor-General. To-day Von Plehwe appoints and dismisses professors or students at his whim and pleasure; he decrees

what is needed for the University, and he assumes the rôle of a brutal martinet when either professors or students dare to complain.

Ever since Helsingfors University was organized the professors of the faculty have been entrusted with appointments to any vacant post in it. To-day they are not even consulted; and their advice in such matters has been rudely and brutally rejected on two occasions during the last year. Nevertheless, even under such adverse conditions their tenacity and firmness have effectively blocked the efforts that have been made to Russianize the University. Of course, Von Plehwe could have summarily dismissed all these sturdy professors, and could have appointed in their places creatures of his own. But that is not his way of doing things. That would have been a plain admission on his part that whoever dared to do anything that did not meet the approval of the Chancellor was to be dismissed. No: he had a better plan, and he put it into operation.

According to a governmental edict the Swedish and Finnish languages will cease in the fall of 1901 to be the languages in which lectures are to be given at Helsingfors University. Russian will become the official language; and, since only very few of the professors are proficient enough to lecture in Russian, they will have to resign or else will be removed as incompetent. The fact that only a small proportion of the students can follow a lecture in Russian does not matter; for under the Russian régime, the function of a University is not so much to educate its students or to promote knowledge as to mould the young men and women into pliable subjects of the Czar.

The fight against these measures will be a very bitter one. The Finns are prepared to defend their rights to the last; but they do not hope for much success. Is there, then, no help for them? An old man, a venerated patriot, has stated his view thus:

"Numerically we do not count. We are a small nation. Russia is very large. We can neither fight her nor oppose her very long. And other countries will not and cannot interfere in our behalf. They are doing precisely the same thing. England has her Boers; Germany her Poles; in Austria one nation fights the other, the Magyars oppress the Germans and Roumanians. And France? France is the ally of Russia. America? No hope from there; she is busy with the Filipinos. It is a pity, an all-round pity; but it seems to me that the days of national existence for small peoples have gone."

And I fear my old patriot is right.

EUGENE LIMEDORFER.

THE EVOLUTION OF THE AMERICAN UNIVERSITY.

For every system of education there is a reason. For every change in the processes of education there is a reason. These reasons do not depend upon the preferences of the teacher, but originate in forces which are far beyond his control. The Chinese student learns the Chinese classics, for through that avenue of knowledge alone can he gain distinction among his fellows, or seek preferment under the state. The Mohammedan youth studies the Koran, for upon that book all Mohammedan institutions are based. In each case the purpose of scholarship is essentially utilitarian, and that training is given which best qualifies the recipient for active participation in the intellectual life of his own immediate surroundings. To that aim all successful schemes of education are directed, all being, in motive, fundamentally the same. Subjects and methods vary with differing environments; but applicable knowledge and intellectual power are always kept in view.

With the revival of learning in mediæval Europe the modern university began. Latin was learned, not for discipline or culture, but because it was the common language of all scholars throughout the Western World. To a less extent Arabic was studied, in order that the medical and scientific lore of the Moors might be made accessible. Later, in spite of opposition, Greek came into vogue for the sake of its treasures in literature and philosophy. For each language there was a definite use; each one opened a path to other knowledge; each was taken as a means and not an end. The study of language for its own sake, for mental discipline, for abstract culture, is a conception of recent growth. Such considerations never appealed to the mediæval mind. For every study there was a practical reason, and scholarship meant available power. In the church or the law, that power could be applied to definite purposes, and therefore it was useful to its possessor. With a limited field for intellectual activity, however, education was necessarily narrow. It was conservative, submissive to authority, and hostile to innovation; but being the creature of its environment it fulfilled its purpose, and left to us an inheritance of precedents which is partly beneficial and partly embarrassing.

Step by step, by slow changes from the mediæval university, the Oxford and Cambridge of the seventeenth century were developed, and after them the earliest American colleges were modelled. Latin and Greek were still the dominant studies, but with an increased appreciation of their literary value; mathematics was just beginning to assume its modern form; philosophy had become less scholastic; the stimulus of the Reformation was evident throughout the intellectual world. Authority was questioned, precedents were disregarded, innovations were proposed in every department of human thought. The old scholarship was modified to meet the new conditions, and came across the Atlantic in its altered form.

On this side of the ocean, although the English pattern was generally followed, another change took place; and the colonial college was given, at least in New England, a distinctly Puritan aspect. Harvard, which was the earliest of the American institutions, was established with especial reference to the training of young men for the Christian ministry; and "Christian," to its founders, meant "Calvinistic." Here again Latin was a fundamental study, for the practical reason that it was still the universal language of scholarship, and that in it were written nearly all the greater treatises upon science and philosophy. Greek and Hebrew were also of use to clergymen, and received due attention; philosophy of a narrow kind was taught; and for mathematics there was a moderate provision. The limitations of the mathematical field we can best appreciate if we remember that Harvard College was founded in 1636, when Galileo and Descartes were still living, but before Newton and Leibnitz were born. The physical and natural sciences hardly existed; geology and chemistry were almost unknown; and the modern languages, apart from the vernacular, were of so little importance to scholarship that they were commonly disregarded altogether. Theology was the crown of all knowledge, and to that all else was subservient. Aside from theological learning, the scholar was one who knew the ancient languages and literatures; and little more was expected. The college stood for the knowledge of the day; it met the demands of its own time and environment; its limitations were natural, and not to be evaded.

With the development of science during the eighteenth and nineteenth centuries the problem of the higher education assumed a new form. New branches of learning came into existence and acquired great importance; and for these the universities were compelled to provide. Latin, considered as a language for practical use, became steadily of less and less value; for the new knowledge was mostly published in the modern

tongues of Europe, and not in the common speech of former times. Hence the English, French, and German languages came into prominence, not only for their literatures, but as keys to knowledge, without which no scholar could get full access to the learning of his fellows. To these, unless some unforeseen change occurs, Russian may yet be added; for the intellectual activities of Russia are enormous, and find their chief expression in the mother tongue. In short, Latin and Greek, which once filled a large part of the educational field, now fill a much smaller portion of it, and the lost positions are occupied in some measure by English, French, and German. Furthermore, new reasons are assigned for the continued study of the ancient languages; and high attainment in the latter demands a working knowledge of the modern tongues. The classical student who would fully understand ancient life, ancient history, or ancient art, or who seeks to go far in philological or archæological studies, must be able to read the works of French and German authors. Without these aids to scholarship his advancement will be slow indeed.

The development of the new education naturally took place by slow degrees; each novelty being first questioned, then tolerated, and finally encouraged. At the outset, the new subjects were treated by what were apparently the old methods; that is, they were taught by lectures and text-books, and each one was given a relatively small amount of time. They were subordinate in rank to the older studies, being regarded as contributory to general information, but as having little or no influence in respect to mental discipline. The classics and mathematics still lay at the foundation of all collegiate training; and the attempt was made to pursue them with undiminished thoroughness, and to assimilate a mass of new material at the same time. The obvious result of this policy was that little or no real science was learned, and the only gain to the student was an overloaded memory. A smattering of scientific facts was given, but with no solid discipline in scientific thought or method, and no training in the power to reason accurately from personally observed data. The memory of the pupil was exercised, but his intellect received only the old cultivation. Even the teachers of science were often quite untrained, and unable to see clearly the problems which lay before them.

From this condition of affairs several consequences followed. Independent schools of science were established, and these attracted a class of students who cared little for scholastic traditions, but had definite purposes in view. The training which the colleges denied was sought

elsewhere; and there sprang up between opposing theories of education a rivalry which exists to the present day. Science demanded the fullest recognition; the classics held the field; and each claimed a supremacy which the other could not admit. The classics, however, were on the defensive side of the controversy; and the evidently diminished utility of Latin and Greek led to excuses for their retention in the list of required subjects.

Thus arose the fallacious distinction between disciplinary and non-disciplinary studies; a distinction for which there was apparently some ground. It was, however, based upon the comparison of incommensurable quantities, and therefore had no foundation in the nature of things. Years of systematic training in Latin, under competent instructors and by established methods, undoubtedly gave a mental discipline of some real value; short courses in science, with untrained instructors and no laboratory practice, gave no discipline at all. Thoroughness in one class of subjects was compared with defective training in another, and so the real questions at issue were obscured. It is now seen that all studies are disciplinary, when pursued seriously, systematically, and by proper methods; but all do not give the same kind of discipline, nor are all methods alike. The chief tactical advantage of the classical position was found in the fact that the preparatory schools were organized and equipped with reference to classical work, while for scientific studies the college student had no preparation whatever. So long as the sciences were given an inferior place and inferior opportunities in education, no just estimate of their educational value could be made. The conservatism of the colleges was not altogether unreasonable. A tried and successful system of education could not be hastily supplanted by an untried scheme. The necessary and inevitable changes were only to be effected by slow degrees, through a natural process of evolution. Science was first to prove her claims and establish her methods of instruction.

It is no paradox to state that conservatism is often the greatest of innovators. The conservative man, when adjusting himself to new ideas, retains his old habits of thought, and so is led to curious misconceptions. Thus, in the early teaching of experimental science, at least in the American colleges, instruction was given by means of lectures and text-books, without laboratory practice, and the teacher supposed that he was applying established methods to his task. In reality he was wandering far away from the recognized pathway to learning, and attempting to do what could only end in failure. All successful study requires direct contact with the thing itself, with the actual subject-

matter of investigation; reading alone or hearsay alone having no solid educational value. In Latin the pupil worked directly with the language, writing exercises and making translations; in mathematics he applied the rules to the actual solution of problems; and in each case the process implied the full equivalent of laboratory practice. The Latin laboratory was equipped with books, blackboards, pencils, and paper; but it was a true laboratory none the less, and the thing itself was studied at first hand. Mere reading or hearing *about* Latin would never have made a scholar. No mathematician was ever trained without long and hard discipline over the equations. The physical and natural sciences needed different laboratories; but the principle of direct study was the same. Just as the Latin scholar works with Latin, so should the student of chemistry handle chemical substances and apparatus, making the facts a part of his own experience, and giving to the deductions therefrom a real and vital meaning.

Thus the pupil learns to examine phenomena, to discriminate between essentials and non-essentials, to verify facts, and to draw correct conclusions from what he sees — a form of mental discipline in which the older education was woefully deficient. Literary studies improve the taste and cultivate the powers of expression; from linguistic training verbal accuracy is acquired; the mastery of grammatical rules with their long lists of exceptions gives a certain alertness to the memory; mathematical exercises develop the reasoning faculty and teach the highest precision of thought and statement. Each of these subjects has its place in the educational field, and yet all together cannot fill it completely. The powers of observation are yet to be cultivated, and here experimental science comes into play. To see clearly and to think clearly are the essence of its teaching; the application of logic to verified evidence is its intellectual domain.

Educational advances, however, are not brought about by philosophizing; they are answers to demands which cannot be denied. Every real step forward corresponds to some real necessity, to some increase of knowledge, to some change in the intellectual activity of the time. The growth of the physical and natural sciences compelled their recognition by the colleges, first as additions to their curricula, then as substitutes, wholly or in part, for something which had previously been regarded as essential. With the development of the laboratory system a new pressure was brought to bear upon the schools, and different institutions were differently affected.

The equipment and maintenance of laboratories and museums, which

are the working tools of science, are expensive affairs; and the resources of education were severely tested. Under the old system a small and poorly endowed college might fairly compete with the richer institutions, and give an education of practically the same quality. But under the new dispensation the larger and richer schools had an enormous advantage, and so they were able to advance along modern lines with much greater rapidity. Furthermore, the small colleges were commonly under sectarian control and subject to ecclesiastical conservatism — a retarding factor which sometimes exerted a most unfortunate influence. It affected the choice of teachers, and often put orthodoxy of belief above special qualifications of knowledge; it led to the duplication of equipments which should have been united; it delayed the acceptance of new doctrines. Fortunately, the denominational schools did not all suffer alike. Some of them escaped, in great measure, from the restrictions which cramped the others; even if they did not welcome novelties, they at least accepted the new conditions and grew with the growth of science.

Through this inequality of progress the American colleges, which had been fairly uniform in character, became divided into two groups, one retaining essentially the old classical type, the other broadening into the modern university. Of course, the division was not marked by any precise boundaries, for every intermediate stage of development was possible; but the distinction is clear enough for purposes of discrimination, and has a certain validity. In American usage the terms college and university had often been used interchangeably, and no doubt erroneously; but now the line of demarcation between them has become more obvious, and the higher term, which is only relative, not absolute, receives a more distinctive meaning. The college stands for a lower grade of work, usually with definite limitations; the university represents higher attainments and a more nearly universal scope. Indeed, the one may be made to include the other, as when the college and the graduate school coexist in one institution; professional schools may be associated with them; but the difference in quality is clear, and university studies are regarded as the highest.

In England, the university is an aggregation of colleges, as at Oxford and Cambridge; elsewhere it has been defined as an institution having the four faculties of arts, law, medicine, and theology; but neither of these definitions holds in the United States to the exclusion of others, nor is any exact limitation of the term possible. The college may exist by itself, as at Williams; Clark University has but a single faculty, and even that is incomplete; Harvard, with its many departments, represents

another type; and so the usage varies. Words alter their meanings in spite of etymology; they disregard history; they outgrow dictionaries. They are the dependent variables of thought, changing as it changes, vague when it is vague, becoming more or less exact just as the conceptions which they represent vary in clearness. So the word "university" fluctuates in value, meaning different things at different times and places. A university charter, valid in the eyes of the law, enables its holder to confer university degrees; but the institution so dignified may fall far short of its pretensions, and be no better than a high school. A Bachelor of Arts from one "university" has been known to enter the "preparatory department" of another, where the best part of a year was needed to fit him for admission to the freshman class. The legal definition, therefore, is as arbitrary as any other, and has only a conventional significance. Let us use the word in its relative sense, and regard a university education as defined by the highest academic training.

It has already been said that the earliest American colleges were fashioned after English models. Their founders were Englishmen, with English ideals and traditions; and although the copy could not be exact, the family likeness was preserved. At that time a man could "take all learning for his province"; he could know "everything of something, and something of everything"; and this possibility gave shape to the college course. All undergraduate students could be treated alike, and receive the same fundamental training; and so the fixed curriculum was adopted, with its prescribed studies throughout. It was a natural consequence of existing conditions, and the fulfilment of a reasonable demand. With a single standard of scholarship the problem before the colleges was very simple; and all students were easily equipped with the tools which were needed for participation in the intellectual life of the time.

To the development of scientific thought during the early part of the nineteenth century the universities of continental Europe gave the quickest and fullest response; while those of England were conservative and slow to change. American students, therefore, who sought advanced instruction in the new fields, went for their training to France and Germany; whence they brought back to the United States a new set of educational ideals. The German influence was the more potent, and in the transformation of the American schools it played an important part. The German system of education could not be adopted bodily, for conditions here and abroad are not the same; but the originally English type of institution was profoundly modified, and the process of change is not even yet at an end. Compare the Harvard of to-day with the Harvard

of fifty years ago, and the difference is startling. The requirements for admission have been increased, and now include subjects which were formerly neglected until the junior or senior college year. The standard of scholarship is higher than ever before, and the field of activity has been broadened enormously. In chemistry, for example, the Harvard undergraduate of 1850 received very little instruction; now, elementary chemistry is taught in the preparatory schools. The science can be studied continuously through the four college years, and after that advanced graduate work is possible. This thoroughness, the thoroughness of specialization, is partly due to the impulse received from the German universities, through the enthusiasm of American students who received their higher training abroad. Not in chemistry alone but in every department of knowledge is this impulse felt; learning has become a republic, in which all subjects are of equal dignity. The notion that one branch of scholarship outranks all others is wellnigh obsolete.

It was not by the preferences of teachers, not through whims and fancies of any kind, that the fixed curriculum of former times gave way to the modern elective system of studies. The change was necessary and unavoidable; it was forced upon the colleges by the growth of knowledge and the altered requirements of the day. No regrets, no repinings, no catchwords about "sound learning" or "a liberal education," no sectarian fears of "science falsely so called" were able to prevent the transformation. To fit the student for active life, to put him in touch with the great intellectual movements of the century, was the problem to be solved, and it could be solved in one way only. The fundamental purpose of education was unchanged; it was the subject-matter and the methods which varied. All attempts to modify the fixed curriculum by the addition of new subjects were foredoomed to failure. They cramped the classics, they trifled with science, they satisfied nobody.

In short, it was no longer possible for any one man to study all desirable subjects, at least seriously or to advantage. Neither had all men the same needs, the same tastes, the same aptitudes, or the same purposes. A selection of studies must be made in accordance with individual necessities; but the method of choice was different in different places. The independent schools of science, of mining, of engineering, turned their attention for the most part to the technological side of the question, and so became institutions for professional training, similar in purpose to the existing schools of law, medicine, and divinity. The agricultural colleges responded to another phase of the demand, and sought to combine a general education with a special, somewhat limited purpose. The

ordinary colleges met the modern demands by various devices. The University of Virginia, for example, was ostensibly elective from the beginning of its organization, but its requirements for degrees reflected the old ideas of classical education; so that although the new conditions were recognized, the recognition was incomplete. No student could receive a degree who had not passed well in the classics.

Many of the smaller colleges "threw a sop to Cerberus" by organizing ostensibly parallel courses of study, each with its prescribed curriculum, and leading to different degrees; but the classical course was regarded as the highest, while the others were mere asylums in which inferior students might find accommodation. In such schools the "scientific course" was often little other than the "classical course" with the classics left out; the amount of science in each being essentially the same. Such an evasion of the demand, however, was not always practised. In some cases the parallel courses were really equivalent in value, and the student merely chose that one of several schemes which best suited his purpose. This solution of the problem was perfectly legitimate, and its results have been fairly satisfactory. Many reputable institutions have developed their elective systems along these lines.

In institutions which were founded during the transitional period, such as, for example, Cornell and Johns Hopkins, the elective idea was recognized from the start. Among the older universities Harvard has probably adopted the method the most broadly and completely. Yale and Princeton, being more conservative, fell into line more slowly, and even yet retain much of the old procedure. Sooner or later, however, the modern policy must prevail. Required studies are becoming fewer and fewer, but no less work is done by the student than before. In fact, better work is accomplished; for chosen studies represent personal interest, and are pursued with greater enthusiasm than those which have been prescribed. Formerly, the youth who entered college without a purpose seldom found one there. He might become interested in a subject which filled a small part of his junior year, only to drop it for some other which came next on the required schedule. Thoroughness, except in mathematics or the classics, was discouraged. Now the veriest cub may find his interest awakened at the beginning of his university career; and being able to follow up his chosen subject through four years of study, he can hope to become a useful scholar. The man with a definite aim is no longer dragged back that dullards may keep pace with him. He can develop himself to the best advantage, and learn that which his nature most craves.

And here we get a glimpse of the real distinction, so often fallaciously drawn, between "hard" and "soft" electives. The study for which a man has no aptitude is hard; that which absorbs his interest is easy. The dunce in Greek may take high honors in mathematics or biology. The brilliant literary scholar may be a fool in astronomy. To put a man on his own feet — to make him think his own thoughts and see with his own eyes — is the aim of the elective system. It encourages originality, independence, and self-reliance; it trains the student to be truly himself. Prescribed studies belong to the preparatory schools; and only those should be universally required which are fundamental to all advanced intellectual training. Fortunately, the high schools have kept pace with the advance of the colleges; and a preliminary education is now given without which the elective system would be impossible.

The final step in the evolution of the American universities, a step to which the elective system was a necessary antecedent, was also due in great part to the example set by Germany. In former days the student was a learner only — one who acquired existing knowledge and looked for nothing further. To question the text-book was heresy; to think outside of rule, a presumption. But the modern university is a producer of knowledge, a school of research, a place wherein the art of discovery is literally taught to pupils. In every German university men are trained to investigate; to question Nature directly, and to elicit new truth from her responses. Even in literature and history the same spirit prevails. Scientific criticism has taken the place once held by authority; the student goes to original sources for his information, and learns to take nothing at second-hand. Thus has been produced a new race of scholars, and all learning has gained a fresh vitality.

On this high plane the best American universities now stand. Each one emulates the others in adding new truth to the sum of human knowledge, and in sending forth men qualified to raise the standard of research ever higher and higher. Mere erudition no longer holds the first place in the world of learning. Scholarship must become a creative force if it would win the highest recognition. The greatest teachers are also the greatest discoverers; and their work is the corner-stone of our modern civilization. Three-fourths of our scientific discoveries originate in the universities, and from them the greater inventions are developed. The pure science precedes its useful applications.

During the nineteenth century all civilized industry has undergone a revolution. Judgment, rule of thumb, empiricism, have been supplanted by a scientific precision which was not formerly possible. Waste

and loss are now reduced to a minimum; accuracy of manipulation, guided by exact weight and measure, controls all manufacturing operations. Steam and electricity have changed the conditions of all commerce. In every line of material progress we see the effects of scientific discovery. The metallurgist is governed by chemical analyses of ore, flux, fuel, and product; electrical currents light our workshops and are harnessed to our machines; worn-out soils are revivified by artificial fertilizers; the sanitation of cities and the prevention of disease have become possible through the results of scientific research. All this material progress, by which our civilization is distinguished from the civilizations of former times, has its roots deep down in the investigations of men who sought truth for its own sake, and whose work was done, for the great part, within the universities. Germany, small in area, weak in natural resources, has seen this principle most clearly. Her trained intelligence has more than made up for her natural deficiencies; her astonishing advance is due to her systematic encouragement of research. The German universities have contributed more than all other agencies combined to the material welfare of Germany. Oxford and Cambridge have lagged behind, and England's industries are suffering. Education, therefore, in its highest development, means something more than intellectual culture; it makes also for material progress. Culture alone, without a living purpose behind it, is only a veneer, a pretence, an elegant hypocrisy. True culture means productive scholarship, and that is the moving force behind our modern civilization. Its home is in the universities; and to them we must look for our greatest advancement in the future. Libraries preserve knowledge; schools distribute knowledge; universities create knowledge.

F. W. CLARKE.

THE GERMAN TARIFF PROPOSALS: WHOM WILL THEY AFFECT?

THE recent tariff proposals of the German Reichsrath are likely to attract considerable attention in America, as their points are understood to be directed against this country. It is, therefore, desirable to examine them with a more careful scrutiny than is usually accorded to foreign topics of a similar kind. If we were really the objects of attack, we should have little right to complain, considering our own exploits in this direction. In that case the Germans might be excused for remembering that stone-throwing can be practised from both ends of the line. Unfortunately for them, however, their position is far more vulnerable than ours. While at the worst we may receive various scratches and irksome blows, they expose themselves to wounds that may affect them vitally.

If the tariff on boots and shoes is raised from 50 marks to 85 marks as the minimum rate for 100 kilos (220 lbs.), and to 125 marks as the maximum, our trade with Germany in these articles may be affected, but the German consumer will scarcely be injured. He has been in the habit of having his foot-gear measured by the shoemaker, who will supply him in the future as in the past, and without any increase in price, even though the whole $140,000 worth that we exported in the year 1900 were given over to the home industry.

The increase of the rates imposed on miscellaneous machinery, which is to pay from 3.50 to 18 marks per 100 kilos, instead of from 3 to 8 marks as at present, together with increased duties in similar proportions upon other manufactures of iron and steel, will do more serious damage to our manufacturers on account of the larger interests thereby affected. But the raised duties will not burden the German consumer either directly or indirectly. The total of 36,000,000 marks, the value of imports in machinery and products of iron and steel from the United States in the year 1900, will certainly not again be reached in the time of depression which is now beginning its sway. German manufacturers will be glad to take half a loaf rather than no bread at all, and to supply all the home demands at whatever price the market may afford.

Without any change in tariff, the immediate future would show a considerable diminution in the number of articles imported from America.

All the imports in manufactured goods from this country — including leather and pig-iron, but omitting raw copper and petroleum, which we happen to call manufactures in America — amounted in the year 1900 to but 60,000,000 marks. In 1897, before the late boom set in, the imports from America of the same class of articles amounted scarcely to one-half of that sum.

Even if the provisions of section VIII of the new tariff proposition were ever to become operative against us, they could do no more than stop our exports, a misfortune which would not be seriously felt in either country.

The situation is different, however, with respect to breadstuffs and provisions. The present duties on wheat and rye are 35 marks per metric ton (2,204 lbs.), and on oats 28 marks. They are to be raised to 65 marks as the maximum tariff, and 55 as the minimum, in the case of wheat, and to 60 and 50, respectively, in the case of rye and oats. Provisions are to be raised in a similar proportion. Meats were 12 marks per 100 kilos, and are now to be 30 marks, *i.e.*, 3¼ cents per lb. These prodigious increases will have quite a different result. If they were intended as retaliatory measures, they could not effect their ends, as Germany submits to an economic necessity in buying our food-stuffs. A rise in duties would act solely to the serious discomfiture of Germany; and her governing classes, if persisting in this policy, would invite results that might prove calamitous to themselves. A statistical survey of the field will make this clear.

In the year ending December 31, 1900, the imports of Germany in articles of food amounted to 1,684,000,000 marks ($402,440,000). Her imports of all kinds of grain amounted to 550,000,000 marks. Of this America supplied 176,000,000. To the sum total of food supplies of 1,684,000,000 marks we contributed 340,000,000. Hence, America supplied 32 per cent of Germany's wants in foreign-grown grains, and 14.5 per cent of the balance of imports contributing to her food bill. In meats Germany imported 45,000,000 marks, in which sum America figured with 18,000,000 marks. In lard, however, imports amounted to 88,000,000 marks, supplied by America almost entirely, as our contribution to this sum was 86,000,000.

Germany exports no grains worth speaking of, but considerable quantities of other foods and drinks. These amounted in 1900 to 496,000,000 marks, of which sum 216,000,000, or 43.5 per cent, consisted

of sugar. Important as these exports are, in comparison with imports, as indicating that Germany's agricultural productive capacity is by no means covered entirely by the deficiencies shown by imports, they need not mar our statement, because in general they comprise other articles than those which form the list of imports.

Our own chief interest is of course in the importation of grains. But, as already stated, we are contributors to Germany's bread ration to the extent of barely one-third of foreign-grown grains. The following table of the sources of her supplies will show to what extent other foreign nations are interested in this question:

GERMANY'S GRAIN IMPORTS IN THE YEAR 1900.

	Marks.	Tons.	Per cent. of value.
Barley: Total imports	92,000,000	781,458	100.
From Austria-Hungary	39,900,000	285,210	43.3
" Russia	39,300,000	381,171	43.2
" the United States	6,200,000	57,235	6.6
Corn: Total imports	128,800,000	1,384,157	100.
From the United States	104,000,000	1,124,602	80.
" Argentina	10,500,000	112,022	8.
" Roumania	5,900,000	57,777	4.6
" Russia	5,500,000	60,297	4.5
Oats: Total imports	46,700,000	462,351	100.
From Russia	38,900,000	389,071	83.
" the United States	5,800,000	54,453	12.4
" Austria-Hungary	1,300,000	12,483	2.5
Rye: Total imports	96,000,000	893,333	100.
From Russia	89,200,000	834,328	90.3
" the United States	2,500,000	21,906	2.4
Wheat: Total imports	171,100,000	1,293,864	100.
From Argentina	63,500,000	479,929	37.
" the United States	60,600,000	455,934	35.4
" Russia	36,400,000	278,196	21.3
" Roumania	5,900,000	43,455	3.4

The amounts imported by Germany and the ratio of the contributions of the different countries figuring in this list vary, of course, in different years according to the needs of Germany and the respective ability of the other countries to supply her wants. But, taking this table as a representative one, we find that Russia supplies 38 per cent and Austria-Hungary 7.5 per cent of the 68 per cent of grain drawn from abroad which is not supplied by us, while Argentina's quota is 13.4 per cent. While Argentina has not figured until the last few years as a heavy contributor to Germany's demands, the exports of Russia to Germany have always been very large, and those of Austria-Hungary small. Averages of a period of years show this more convincingly. The seven years closing with 1900 show imports in grains of

an average of 492,000,000 marks. To this America contributed 140,000,000, or 28.5 per cent; Russia 218,000,000, or 40 per cent; Austria-Hungary 50,000,000, or 8 per cent; and Argentina 34,000,000, or 7 per cent.

Austria-Hungary is interested in these higher grain duties to a limited extent. Her grain exports to Germany consist chiefly of barley. But Russia's exports are principally turned toward Germany; and both on that account and on account of the magnitude of her trade relations, that country would be affected by a rise in tariff to a far greater extent than the United States could possibly be. There is, however, a *but* in the case. As Germany's production of grain is insufficient to feed her people, she is compelled to supply her deficiency from sources which happen to have a surplus to dispose of; and these are the countries that figure in the above statement.

Germany cannot be a chooser. Not even prices are of her making. These are made by the world's demand. Any duties which she may be disposed to lay on will simply be burdens laid on her people, as they will affect not foreign-grown grain alone, but all the home product. The duty is a protective measure, raising every ton of grain consumed by the people by about 55 marks over the free-trade price, though the imports are 550,000,000 marks, or one-sixth of the entire consumption. It is the same with meat. Every pound consumed will be raised $3\frac{1}{2}$ cents, though the imports were but 40,000,000 in 1900. The ten years preceding the recent period of trade expansion show an average of but 26,000,000 marks in meat imports. But all this is as effective in raising the price of every pound of meat sold by the butcher as if the whole quantity consumed had to be imported.

The proportion of grain imported to home-grown grain is as 19 to 100. The product of the year 1900 was 23,000,000 metric tons, and the net imports, deducting exports, 4,300,000 tons. The burden of the consumer will therefore be $27,300,000 \times 55$, or 1,501,500,000 marks per year. Of this sum the Government will receive $4,300,000 \times 55 = 236,500,000$ marks, and the surplus, after allowing for what is consumed on the farms, will be a bonus to the "agriculturist."

The modern Issachar, the strong ass that crouches between two burdens, has been made to believe that the heavy duties laid on imported goods in order to swell the price of the corresponding article made at home to the full extent of the duty, so long as the market will afford it, are actually the cause of his well-being. It remains to be seen whether the German will be willing to accept the increased burden

with equal readiness to that of the American under the stimulus of the same plea.

The amount of the meat bill cannot be computed as easily as that of the grain and bread bill. The imports of meat are small, as has been shown. Nor is there a large importation of animals to be slaughtered. The value in 1900 was 67,000,000 marks. Consequently, the whole German consumption of meats raised on foreign soil is, and probably will remain for some time, not quite 100,000,000 marks a year. The burden of 3½ cents a pound will not, therefore, fall any the less on every pound of home-grown meat consumed in Germany. It is difficult to say, without a laborious calculation from the animal statistics of the empire, what this is. But, assuming the burden of the consumer to be covered by 500,000,000 marks, the duty of 30 marks per 220 pounds would be equal to a consumption of 65 pounds per capita. Mulhall computes the consumption of meat in Germany at 69 pounds per inhabitant. My estimate will, therefore, be rather below than above what is warranted by the actual conditions.

Another large item in burdens laid on articles of food for the benefit of "agriculture" is the duty on sugar. The duty on refined sugar is 30 marks per 100 kilos. This is to be raised to 40 marks. The imports in 1900 were 486,000 marks, the exports 216,338,000 marks. The full amount of the duty is levied by the producer for every pound of sugar consumed at home, as can be seen by comparing the retail price in Germany with the ruling prices in England.

In 1900, the product of raw sugar was 1,795,479 tons. The exports were 1,006,466 tons, leaving for home consumption 789,013 tons. This would be equal to fully 720,000 tons of refined sugar, as raw beet sugar is of a high degree of saccharine strength. The 7,200,000 metric cwts. at 40 marks take therefore 288,000,000 marks out of the pockets of the consumers and transfer them into those of the producers — minus the tax on beets. The deduction of the tax on beets, less the drawback paid on exported sugar, still leaves a bonus of 150,000,000 marks, designed to benefit "agriculture," but practically gilding the pockets of the manufacturers of the sugar.

Thus the new tariff will cause the consumers of Germany to pay well up to the amount of 2,100,000,000 marks on their food — after allowing for the consumption on farms — in excess of the sum they would have to pay were there no duties on these articles. Out of this sum the Government will receive about 250,000,000 marks, and the other participant in the division will gather 1,800,000,000 marks. In other

words, for every dollar of revenue collected by the Government, the latter will permit "agriculture" to collect six dollars for its own benefit. Under the present tariff the total burden is only about 1,200,000,000 marks. But the ratio of yield to the Government and to the private tax collector is not materially different.

It may be asked here: What would be the result if the Government were to levy a direct tax of two marks and fifty pfennigs upon every inhabitant for its own purposes, and for every two and a half marks so collected were to permit various privileged classes to collect for their own enrichment nineteen marks from every inhabitant so taxed, and were then coolly to propose that the tax should be increased to nearly double the previous amount of these two burdens?

The Germans are told that the duties are required to enable the agriculturist to maintain himself in the unequal struggle against American products. It remains to be ascertained what constitutes the agricultural class for whose benefit the German is called upon to make sacrifices which in their milder form have already reduced his status of existence to one in which the barest necessities of life are scarcely met.

The census of 1895 shows 18,501,307 persons, about one-third of the population, dependent on the soil for their support. The soil under cultivation was distributed as follows:

AGRICULTURAL HOLDINGS OF GERMANY.

		Number of holdings.	Number of hectares.	Hectares per cent.	Average number of hectares per holder.
I.	Under 2 hectares	3,236,367	2,415,914	5.57	0.75
II.	Between 2 and 5 hectares	1,016,318	4,142,071	9.33	4.07
III.	" 5 " 20 "	998,804	12,537,660	29.	12.51
IV.	" 20 " 50 "	239,643	9,459,240	21.84	39.35
V.	" 50 " 100 "	42,124	3,697,961	8.54	87.84
VI.	" 100 " 500 "	20,881	6,571,104	15.15	314.4
VII.	Over 500 hectares.....	4,180	4,460,792	10.57	798.
		5,558,317	43,284,742	100.	

The acreage of all these holdings cultivated by these 5,558,317 heads is 43,284,742 hectares (107,000,000 acres, one hectare being equal to 2.471 statute acres). The holdings average but 7.78 hectares each, or less than 20 acres, but they are very unevenly distributed, as is seen from the above figures. We find that 67,000 landholders, whom we may call the landholding class, possess nearly as much land as the 2,015,222 peasants holding from 2 to 20 hectares each.

When tariff measures are under discussion by the national legislators

of the United States, it is not unusual for interests wishing to have their special claims advanced to send delegations of working-men to Washington, to urge the necessity of the maintenance or increase of existing high duties as a *sine qua non* for the continuance of the rate of wages these working-men have been receiving. The fact that the lower piece-rate of wages paid here can alone explain the lower cost of production in America has never yet interfered with the granting of the benefits sought. The German landholders seem to have learned a lesson from us. The agricultural classes are brought to clamor for high duties on grain and provisions as an indisputable necessity for the further prosecution of the farming industry. To prove the analogy of the two cases, let us examine to what extent the German farmer is a seller of grain.

It is self-evident that none of the 3,236,367 holders in class I, with average holdings of $\frac{3}{4}$ of a hectare, or $1\frac{3}{4}$ acres, grows grain. The cultivators of these tracts are market gardeners or agricultural laborers, or are engaged in industrial or other pursuits, earning wages in those pursuits, and devoting their spare time and the labor of their families to the small parcels of land rented or possessed by or allotted to them. They buy their bread and whatever meat or animal food they may be able to procure. Class II, consisting of holdings between 2 and 5 hectares, in reality averages but 4.07 hectares (10 acres) to each holder. It is demonstrable that this class, composed of the smaller peasantry, is burdened rather than helped, as at best those who compose it consume the corn they grow on their own farms, while in most cases they have to buy bread as well as other provisions.

Preceding and following the time of the enactment of the last tariff on grain, inquiries were instituted by various German Governments into the conditions of agriculture. The question of the size of holdings that permitted the grower to become a seller of grain was a prominent one. The findings of these investigations are interesting, and throw a welcome light upon the situation. In an inquiry covering the Duchy of Saxe-Coburg it was shown that, in cases of good harvests, and of thorough cultivation, the lowest limit where the selling of surplus grain becomes possible must be fixed at 4.54 hectares (11.20 acres). It was found that 84 per cent of holders had to buy to meet their needs, either fully or in part, and that only 16 per cent were able to sell grain. These latter, however, possessed between five and six times as much land as the 84 per cent of the former class. The report says:

"The peasant representing this class (4.54 hectares) may sell milk, butter, vegetables, fruit, and honey, a calf now and then, and some straw at times, here and there

a small quantity of summer grain, but in the ordinary run of things not a kilo of breadcorn. He may be seen occasionally on the market with a few bags of wheat or rye; he has to change the seeds; but what he sells in favorable market conditions he may have to buy in again when conditions favor buying. If grain were to be covered by duties of two and three times the present rates, he would not have a penny's worth of profit, and in poor harvests he would suffer positive loss."

In 1883 the Government of the Grand Duchy of Baden instituted an inquiry into the same question. It was stated, as the result of this inquiry, that the doubling of the existing duties, as was being advocated rather forcibly even then, would not materially benefit holdings of even 10 hectares (24.70 acres) in grain-producing sections in the northern and southern parts. In five communities in the northern section five holdings, averaging 11.6 hectares, realized 1,149 marks from sales of farm products, but claimed an average of 43.40 marks only in surplus income as a result of the raising of the grain duties to double the prevailing rates. In the southern section the showing is still less encouraging for higher grain duties. Eight holdings in six different communities averaged 14.10 hectares each. The average yield of sales was 1,855 marks each, on which the benefit from increased duties would give a surplus income of but 35.50 marks. This is in the hilly sections, where results are not as favorable as in the lowlands. But, as Germany has as many hills as plains, we have to apply similar methods of scrutiny to all the returns that cover holdings of that size. We must add the sections in the low countries where other cultures than grain are favored by climate and territorial conditions, to reduce further the numbers of possible beneficiaries of grain duties in class III. The report says that if the data obtained by inquiry were extended so as to cover the whole state, the result would show that but 3.31 per cent of holders, possessing, however, 27.4 per cent of the total area, had a material interest in an increased duty on grain. The limit where this material interest begins is put as high as 15 hectares (38 acres).

To understand the question fully in its economic and political bearings, it is necessary to cast a glance on the division of land in the separate states constituting the empire as well as on the several provinces of Prussia. In the provinces of East and West Prussia, Brandenburg, Pomerania, Posen, and Silesia, the holdings of classes VI and VII form from 33.86 to 55.24 per cent of the agricultural domain. In the two Mecklenburgs the percentage is as high as 59.95 per cent in one of the two states, and 60.68 per cent in the other. On the other hand, the holdings from 2 to 5 hectares cover from 3.61 to 5.35 per cent in the five first-named provinces of Prussia, and 10.86 per cent in Silesia, while

in the Mecklenburgs they cover but 1.65 and 2.70 per cent. The holdings of class III cover but 14 per cent in East Prussia, 15 per cent in Pomerania, and 29 per cent in Silesia. If we now proceed to the western provinces of Prussia and the other German states, we find the relations in the holdings reversed. Here the land is divided largely into peasant holdings, while the prevalent manufacturing industries give the tenant a market for innumerable articles of small produce, and create conditions that make small holdings a possible basis for a livelihood.

The following tables set forth these comparisons in detail.

A — Proportion of Small Holdings to Large Holdings in the Western Provinces of Prussia and in the German States South of Prussia.

Provinces of Prussia.	Class II, per cent.	Class III, per cent.	Classes II and III, per cent.	Classes VI and VII, per cent.
Hanover	11.83	32.01	43.84	7.14
Westphalia	13.64	34.67	49 31	5.30
Hesse-Nassau	20.84	43.15	63.99	7.34
Rhineland	19.92	43.24	63.16	3.51
States.				
Bavaria	12.74	49.49	62.23	2.57
Würtemberg	23.32	45.05	68.37	2.14
Hesse, Grand Duchy	21.35	50.22	71.57	4.89
Alsace-Lorraine	22.81	37.09	59.90	7.38
Baden	29.37	41.78	71.15	3.06
Oldenburg	13.11	29.43	42.54	3.16

B — Proportion of Small Holdings to Large Holdings in the Eastern Provinces of Prussia and the Grand Duchies of Mecklenburg.

	Class II, per cent.	Class III, per cent.	Classes II and III, per cent.	Classes VI and VII, per cent.
East Prussia	3.86	14.96	18.82	39.47
West Prussia	3.61	17.22	20.83	43.66
Brandenburg	5.35	20.73	26.08	35.24
Pomerania	3.44	15.64	19.08	55.24
Posen	3.67	20.83	24.50	52.19
Silesia	10.86	29.11	39.97	33.86
Mecklenburg-Schwerin	2.70	6.83	9.53	59.95
Mecklenburg-Strelitz	1.65	5.18	6.83	60.68

The case could not be presented in sharper outlines than in the figures afforded us by the German census. They show that these six provinces of Prussia and Mecklenburg hold 6,247,577 hectares of land

under classes VI and VII, while the remainder of the empire has an area of but 1,684,224 hectares under this heading. The population of the provinces and states, with the maximum of large holdings, represented in table B is 15,500,000; that of the rest of the empire represented by table A, with the minimum of large holdings, is 41,000,000.

These figures furnish a key to the economic, social, and political complications which surround the fatherland; but it is not the object of these pages to deal with them. It is obvious that the large numbers do not represent such holders of land as are interested in the duties on corn and other agricultural products. A preponderance of small and medium holdings is opposed to an insignificant minimum in large holdings in all the states and provinces where small holdings predominate. On the other hand, where the large holdings absorb the large percentage of the area shown in the second table, the small tenant almost disappears. The part of the peasantry that is represented in class III is possessed of barely one-half of the ratio of the area that is absorbed by the corresponding class in my first table. The contrast between the Eastern provinces of Prussia, on the one hand, and the industrial provinces of the monarchy with the rest of Germany, on the other, is well illustrated by these showings. The contest is one between the Northeast, where feudal conditions have still a strong foothold, and the rest of the empire, where democratic tendencies prevail.

What has been set forth in detail may be thus recapitulated: Of 5,558,317 agricultural tenancies classified in the census of 1895, as many as 3,236,367 tenants, who occupy respectively not more than 2 hectares, are excluded, on account of the smallness of their holdings, from all participation in the benefits of the tariff. They are heavily burdened, as they have to buy their articles of food, whether bread, flour, or meat. Those who are found in class II (2 to 5 hectares), numbering 1,016,318 persons, produce no salable surplus, and have frequently to buy corn, and in most cases a part or the whole of the flesh food they consume. They are not benefited, but burdened to the extent that they become purchasers. Class III (5 to 20 hectares), numbering 998,804 heads, shows an average of but 12½ hectares to each holder. It follows that a great percentage in this class comes near the lower limit of size in holdings. Without reference to the estimate by the Baden report of 15 hectares as the point at which the high grain duties become of benefit to the producer, we may assume that one-half of that number may be considered to derive some benefit from the high tariff. They look, however, with indifference on these duties, as they declare in the report pre-

viously quoted, because their interests are too insignificant. The other classes number in all 307,000 heads. They hold from 20 to 500 hectares and over. But of these again, it must be remembered, 25,000 hold nearly as much land as the remaining 280,000. It is in their interest alone that all these burdens are heaped upon the peasantry and the industrial classes of Germany.

With consummate skill the privileged classes keep themselves free, and put the burdens of taxation upon the peasantry and the industrial classes in a double or treble degree. That the working classes are little able to stand up under increased burdens is clearly proved by the conditions which now rule in all the industries of Germany. The miserable wages paid to working-men seldom permit them to lay aside a penny for a rainy day. The iron and coal industries have never been so prosperous as in the last two years. Millions and tens of millions have been heaped up in profits by the lucky owners of mines and furnaces. But, as shown in a previous number of THE FORUM, the increases in wages have been of the paltriest nature.[1] The wages of miners, which were 3.75 marks (90 cents) in 1895 rose to 4.55 ($1.09) in the boom time, and those of day laborers from 2.74 marks (63 cents) in 1895 to 3.04 marks (73 cents). We may judge from the mining industry, the most prosperous in the empire, what the condition must be in less fortunate fields, and in times of relapse.

From what has been shown in the course of this article, it is evident that the tariff increases proposed by the German Reichsrath can in no way inflict a very serious injury upon American interests, or, for that matter, upon the interests of any foreign state. But that their enactment would be a most cruel infliction upon the German people for the sole benefit of 300,000 landholders is clearly demonstrable, and permits of no doubt.

JACOB SCHOENHOF.

[1] "The Nations in Competition at the Close of the Century." THE FORUM for March, 1901.

THE SOUTHERN PROBLEM.

MR. BAILEY'S special plea in THE FORUM for April, 1901, entitled "The Case for the South," is one of many indications that the greatest problem facing the United States since the Civil War has reached the stage at which attempted solutions are the subject of calm and reasonable discussion. In other words, the practical side is uppermost, and sentiment and prejudice are compelled by the logic of events to take the second place. That may not be true in the case of every man or every community; for intolerance is not confined to either side of Mason and Dixon's line. The intolerance of the Northern man in this question comes from an ignorance of the facts; that of the Southerner from the idea that the results of ordinary experience are final. It cannot be doubted that before any impartial tribunal the position of the Southern man would be the stronger; and yet in the position adopted by the Southerner there is a fatal weakness which comes as near putting him out of court as does the Northern man's ignorance. I mean, of course, when the case is considered from a strictly judicial standpoint; for the Southern man's practical knowledge is invaluable. It is not too much to say that the North really concedes this, and will watch the South with critical and apparently unsympathetic eye while it works out its own salvation.

Naturally, an occasional politician and editor will rail in unrestrained fashion at the disfranchisement of the negro, and will threaten the enforcement of the Fourteenth Amendment; but the best evidence that there is nothing behind such protests is the fact that the legal disfranchisement of the negroes in several of the Southern States is an accepted fact. To be sure, Maryland is the only one that has taken an unassailable position. The others have admitted illiterate whites and have barred practically all blacks; but the results are accepted in a tolerant if not an approving mood.

Mr. Bailey sums up by saying: "So, then, I submit that it is good statesmanship to leave the South to her own way in working out her salvation from the ignorant negro vote." Good! She already has it. To that can only be added the advice: Now make the best of it.

What is the best that can be made of it? Is it to proceed on the assumption that experience of the negro as a slave, or as a slave suddenly freed, is final? This would be a fatal error. As well might one assume to judge of the capacities of a man in health from observing his petulance as an invalid. This would be as hopelessly unjust and foolish as was the Northern man's idea that the former masters of the negroes were not their best friends. Of course, the point of view is to blame for this misconception. The Southern man can see the Northern man's folly, but he cannot imagine his own, even when he admits the remarkable intellectual and material advancement of the negro in one generation. That advancement is none the less marked because of his relatively low position to-day. The negro's condition a little over a generation ago has been most vividly portrayed by Ex-Secretary Herbert, as follows:

> "Not in all of the imaginings of the Arabian Nights is there any concept so startling as the sudden manumission of four millions of slaves, left unshackled to shift for themselves — without property, without resources excepting their labor, without mental training, and with no traditions, save only such as connected them with bondage and barbarism."

Yet, Mr. Bailey solemnly asserts that it is unreasonable to hope that the negro can be fitted for the responsibilities of the ballot in two hundred years. There is the fatal weakness of the Southerner's position. No man has any right to predict what standard of development or decadence any race of human beings will attain in two hundred years. It all depends upon circumstances.

Aside from the negro's savage ancestors and his position of irresponsibility as a slave, he has missed, for the most part, the influences of even the most rudimentary sort of home life. Under the exigencies of the slave system, the humblest home had no chance of permanency, and consequently had but little influence. Among the civilized races that have gone far on the road of progress, the family life of the people is reckoned the foundation of self-respect and morality. The negroes in the United States thirty-five years ago had, however, scarcely any better developed traditions of family life than the birds that mate in the spring.

But the generation born since the war and now rearing young children possesses a home life, poor as it must be in a majority of instances. Their children's children, the proverbial third generation, will inherit certain family traditions and ideas of training. What those traditions and ideas are will depend upon the education of the fathers and grandfathers. Suppose, for instance, that a negro, now of the age of thirty, has received at the institution conducted by Mr. Booker T. Washington, at

Tuskegee, a common-school education and the knowledge of a trade, together with some ideas of proper living. Suppose, too, that his children and grandchildren will have a similar training. Will any man undertake to lay down the positive dictum that those grandchildren will be more unfit for the responsibilities of the ballot than the children of the European peasants who vote in all our States? Will any man, not blinded by prejudice and intolerance, claim that he can predict the future of the negro race before he has seen the third generation born outside of slavery — a generation possessing some idea of a home, and a little education and knowledge of skilled labor? That will be sixty years hence, almost a hundred years after the period of slavery. Will any man, who has given the subject an hour's thought, deny the reasonableness of suspending judgment? The extent to which favorable conditions will obtain will depend upon public-spirited men and the voters who sustain their policy.

Of course, all the race will not come under the beneficent influences of Tuskegee, Hampton, and other centres of practical education; but already in the maturity of the first generation born since the war, the leavening influences of the best education are distinctly a factor in the problem. If the South is to make the best of its tacit freedom to settle its own peculiar troubles, it will be necessary for it to adopt a new point of view in estimating the capabilities of the black man, not so much in the present generation as in the generations to come.

There can be no reasonable objection to an educational qualification for the franchise; but a test of this kind ought to be a fair one, and it ought to apply to all the citizens in the State. To allow an illiterate man to vote because his grandfather voted, and to debar another because of his ignorance, is for the law-making power to stultify itself and to destroy, by its own act, the respect of honest men. To leave to the discretion of election officers the choice of questions to determine a man's qualifications for the ballot is to make a farce of the whole proceeding. For instance, how many white men of fair intelligence can explain the meaning of that provision in the State constitutions which prohibits the making of *ex post facto* laws?

As for the lack of sympathy of the North for the South, it is probably a lack of comprehension rather than anything else; it is certainly not active antagonism. The attitude of the North is undoubtedly critical, but that is always the case in families and nations. The people of the North value our united country quite as highly as the people of the South love the Union. The progress of both sections is a matter of congratulation, pride, and — criticism. GEORGE A. THACHER.

THE ESSAY AS MOOD AND FORM.

It is odd that while the essay as a distinctive form in modern literature is so well cherished and enjoyable, it has received so little expert attention. Books upon the drama, upon poetry in its many phases, upon the novel even, a thing comparatively of but yesterday, are as leaves in Vallombrosa for number; but books on the essay — where are they? It is high time the natural history of the essay was written; for here is a fascinating literary development which has had a vigorous, distinguished life of more than three hundred years in English, and which counts among its cultivators some of the abiding names in our native literature. Here is a form, too, interesting because of its relations to such other forms as fiction, which is connected with it by the bridge of the character-sketch; the drama, whose dialogue the essay not seldom uses; and such later practical offshoots as the newspaper editorial and the book review.

This neglect of the essay is not altogether inexplicable. Scholars have been shy of it, I fancy, in part at least, because on the side of form — the natural and proper side to consider in studying the historical evolution of a literary *genre* — it has been thus fluent and expansive, a somewhat subtle, elusive thing. We can say, obviously, that an essay is a prose composition. But can we be more explicit than this rather gross mark of identification? The answer is not so easy. Moreover, the question has become further confused by a change in the use and meaning of the word within a century. A cursory glance at the history of the English essay will make this plain.

Lord Bacon was, by his own statement, fond of that passed master of the essay in French, Montaigne. It is small wonder, then, that when, at the end of the sixteenth century, he put a name to his "dispersed meditations," he called them essays, after the Frenchman, using the word for the first time in our tongue. Not the name only but the thing was new. (The form was slight, the expression pregnant and epigrammatic: there was no attempt at completeness.) The aim of this early prince of essayists was to be suggestive rather than exhaustive —

the latter a term too often synonymous with exhausting. Bacon's essays imply expanded note-book jottings. Indeed, he so regarded them. In the matter of style, one has but to read contemporaries like Sidney, Lyly, and Hooker, to see to what an extent Lord Bacon modernized the cumbersome, though often cloudily splendid, Elizabethan manner. He clarified and simplified the prevailing diction, using shorter words and crisper sentences, with the result of closer-knit, more sententious effect. In a word, style became more idiomatic, and the relation of author and reader more intimate, in the hands of this Elizabethan essay-maker. The point is full of significance for the history of this alluring form. Its development ever since has been from this initiative. Slight, casual, rambling, confidential in tone, the manner much, the theme unimportant in itself, a mood to be vented rather than a thought to add to the sum of human knowledge, the frank revelation of a personality — such have been and are the head-marks of the essay down to the present day. This fact is somewhat obscured by our careless use of the word at present to denote the formal paper, the treatise. The current definition of the essay admits this extension, and of course we bandy the word about in such meaning. But it is well to remember that the central idea of this form is what removes it forever from the treatise, from any piece of writing that is formal, impersonal, and communicative of information.

Little was done for the development of the essay, after Bacon, during the seventeenth century. But with Addison, Steele, and the "Spectator" in the early eighteenth, the idea is reinforced, and some of the essential features of this form are brought out the more clearly. The social, chatty quality of the true essayist is emphasized; the writer enters into more confidential relations with his reader than were ever sustained with the stately Verulam; and the style approaches more nearly to the careless, easy elegance of the talk of good, but not stiff, society. The "Spectator" papers unquestionably did more than any other influence to shape the mould of essay writing in English. At the same time, to speak, as some critics do, as if Mr. Bickerstaff originated the form, is to overlook its origin with Bacon. The essay idea — this colloquial, dramatic, esoteric, altogether charming sort of screed — was cultivated quite steadily through the eighteenth century. It became, as a rule, more ponderous in the hands of Johnson, and was in danger of taking on a didactic, hortatory tone foreign to its nature; yet occasionally in the "Rambler" papers Johnson exhibits a lightness of touch and tone that is surprising, and that suggests that we have perhaps regarded the dictator as too exclusively a wielder of sesquipedalian words. That

this God of the Coffee House had a clear and correct idea of the essay is shown by his own description of it: "A loose sally of the mind," he says, "an irregular, indigested piece, not a regular and orderly performance."

Goldsmith, a light-horse soldier in contrast with Johnson, full panoplied and armed cap-à-pie, broadened the essay for literary and social discussion, although Grub Street necessity led him at times to become encyclopedic; and he was never happier than when, as in the "Reverie at The Boar's Head Tavern, Eastcheap," he played upon some whimsical theme, pizzicato, surcharging it with his genial personality. Minor writers, too, in the late eighteenth century had a hand in the development, none more so, to my mind, than the letter and fiction makers, Chesterfield and Walpole, Lady Mary Wortley Montagu and Fanny Burney — these and that inimitable fuss and chronicler, Boswell. If one would know how society talked in the second half of that Tea-Cup century, one must read not the dialogue of the novelists, where the art is too new to have caught quite the accent of life, but these off-hand epistles dashed off without a thought of print — to print were half-way vulgar then — and hence possessing all the freshness and naturalness of life itself, the ideal essay note. We may be thankful that as yet the habit of publishing everything, from one's thrills to one's table tastes, had not gained popularity: those ladies and gentlemen could afford to be charmingly unreserved in their private correspondence. To-day, in the very act of penning a note, intrudes the horrid thought that it may be incorporated as an integral part of one's "works."

The letter, as a literary form, offers an interesting line of side inquiry in connection with the essay. It has influenced that form beyond doubt, and is in a sense contributory to it. In the same way, dialogue — a modern instance like Landor comes to mind — has had its share in shaping so protean a form.

But it was reserved for the nineteenth century to contribute, in the person of Charles Lamb, the most brilliant exemplar of the essay, the prince of this especial literary mood—not primarily a thinker, a knowledge-bringer, a critic; but just a unique personality expressing his ego in his own fascinating way, making the past pay rich toll, yet always himself; and finding the essay accommodative of his whimsical vagaries, his delicious inconsistences, his deep-toned, lovable nature. And that incomparable manner of his! 'Tis at once richly complex and tremulously simple, an instrument of wide range from out whose keys a soul vibrant to the full meaning of humanity might call spirits of earth and heaven in exquisite evocations and cadences at times almost too pierc-

ing sweet. Turn to the Elia papers and see how perfectly this magic of Lamb's illustrates and supports the qualities of mood and form I am naming as typical of the essay as an historic growth. The themes, how desultory, audacious, trivial, even grotesque! The only possible justification for a dissertation on roast pig is the paper itself. Note, too, how brief some of the choicest essays are — half a dozen small pages, even less — and with what seeming carelessness they vary, stretching themselves at will to four times their normal length. Study the construction of any famous essay to see if it can be called close-knit, organic, and you will find a lovely disregard of any such intention.

The immortal "Mrs. Battle's Opinions on Whist" gives a capital example. If you turn to the end of that inimitable deliverance you will find it to contain one of the most charming digressions in all literature. Lamb leaves that delicious old gentlewoman for a moment, to speak of Cousin Bridget, Bridget Elia, the tragic sister Mary of his house; and playfully, tenderly, picturing their game at cards, he forgets all else and never returns to Mrs. Battle. But who cares? Is not lack of organic connection (to call it by so harsh a name) more than justified by that homely-heartful picture of Charles and Mary Lamb, bent over their "mere shade of play," a game not for shillings but for fun — nay, for love. "Bridget and I should be ever playing," says he, and the reader is charmed and stirred clean out of all thought of Mrs. Battle. It is ever so with your essayist to the manner born! To wander and digress is with him a natural right. He is never happier than when he is playing mad pranks with logic, respectability, and the mother-tongue. Yet should his temperament be sensitive, his nature broad, deep, and noble. The querulous-gentle Elia was surely of this race.

To turn from Lamb to any contemporary is an effect of anticlimax. None other was like to him for quality. Yet Hazlitt and Hunt were his helpers, doing good work in extending the gamut of this esoteric mood in literature. De Quincey, too, though losing the essay touch again and again because of didacticism and a sort of formal, stately eloquence, wrote papers in the true tradition of the essayist. Passages in the "Opium Eater" are of this peculiar tone; and that great writer's intense subjectivity is always in his favor — since the genuine essay-maker must be frankly an egoist. Hunt is at times so charming, so light of touch, so atmospheric in quality that he deserves to be set high among essayists of the early century. A man who could produce such delicately graceful vignette work as his sketches of the Old Lady and the Old Gentleman was a true commensal of Lamb. In such bits of

writing the mood and manner are everything, the theme is naught; the man back of the theme is as important in the production of the essay as is the man back of the gun in warfare. Herein lies Hunt's chief claim on our grateful remembrance — here, and in certain of his verses, rather than in the more elaborate papers to be found in such a volume as "Imagination and Fancy."

But already we must begin to recognize in writers like Hunt, Hazlitt, and De Quincey, and still more in later men, a tendency distinctly modern and on the whole antagonistic to the peculiar virtues of the esoteric essay, the *causerie* of literature: it is moving fast toward the objective, rounded out, formally arranged treatise. It becomes argumentative-critical, acquisitive-logical, expository, laden with thought. Hence, when we reach masters like Ruskin, Carlyle, Arnold, we see what is natural to them as essayists in one sense deflected into other, and no doubt quite as welcome, forms: one and all they have messages, and missions. Now, your *bona fide* essayist has nothing of the kind. He would simply buttonhole you for a half-hour while he talks garrulously, without a thought of purpose, about the world, and himself, especially the latter. Splendid blooms grow from out the soil which gives us our Ruskins and Carlyles; but when we are considering this sensitive plant of the literary garden, it were well to agree that it is another thing, and to save for its designation the word essay. Nor is this to deny essay touches, essay moments, essay qualities to Ruskin or Carlyle: it is only to make the point that their strenuous aim and habitual manner, so far as they went, were against the production of a very different kind of literature.

Earlier American writings have at least supplied one real essayist to the general body of English literature, the genial Irving, who was nurtured on the best eighteenth-century models and carried on the tradition of the "Spectator" and Goldsmith in papers which have just the desired tone of genteel talk, the air of good society. There are hints in Benjamin Franklin that, had politics not engulfed him, as they afterward did Lowell, he might have shown himself to the essay born. Irving is sometimes spoken of as a fictionist, but all his stories have the essay mood and manner; and he had the good sense practically never to abandon that gentle *genre*. His work always possesses the essay touch both in description and the hitting-off of character; thus offering an illustration of the fact that the essay, by way of the character sketch, debouches upon the broad and beaten highway of the novel, the main road of our modern literature. There are plenty of Irving's papers

which it is rather puzzling to name as either essay or fiction — "The Fat Gentleman," for example. A later and very true American essayist, Dr. Holmes, furnishes the same puzzle in the "Autocrat" series. They have dialogue, dramatic characterization, even some slight story interest. Why not fiction then? Because the trail of the genuine essayist is everywhere; the characters, the dramatic setting, are but devices for the freer expression of Dr. Holmes's own delightful personality, which, as Mr. Howells testifies, Holmes liked to objectify. It is our intimate relation with him that we care about in converse with the essayist born: we sit down to enjoy his views. The fictionist's purpose, contrariwise, is to show life in a representative section of it, and with dramatic interplay of personalities moving to a certain crescendo of interest called the climax.

And so Dr. Holmes remains one of our most distinctive and acceptable essayists of the social sort; possessing, I mean, that gift, perhaps best seen with the French, of making vivid one's sense of one's relation to other men and women in the social organism. It is the triumph of this kind of essay to be at once individualistic and social, without eccentricity, on the one hand, or vulgarity, on the other. Vulgarity, by the way, is a quality impossible to the heaven-called essayist: it can be better tolerated in poetry even. For the intimacy between the essayist and his reader — I say "reader" rather than "audience," with a feeling that the relation is a sort of solitude *à deux* — is greater than in the case of any other form of literary expression. Hence, when one enters, as it were, the inner rooms of a friend's house, any hint of the *borné* is more quickly detected, the more surely insufferable.

The voice of a natural essayist like Thoreau is somewhat muffled by being forced now and then into the public pulpit manner. Yet an essay-writer by instinct he certainly is, particularly in his journal, but often in the more formal chroniclings of his unique contact with nature. In Emerson, too, we encounter a writer with a vocation for the essay, but having other fish to fry — doubtless a loftier but a different aim. No man, English or American, has a literary manner which makes the essay an inspired chat more than the Concord Sage-Singer; and the inspired chat comes close to being the beau-ideal of your true-blue essayist. With less strenuousness of purpose and just a bit more of human frailty — or, at least, of sympathy with the frail — here were indeed a prince in this kind!

How much of the allurement of the essay style did Lowell keep, however scholarlike his quest, in papers literary, historical, even phil-

ological! In a veritable essay-subject like "On a Certain Condescension in Foreigners," he displays himself as of the right line of descent from Montaigne. There is in him then all that unforced, winsome, intimate, yet ever restrained, revelation of self which is the essayist's model, and despair. In the love-letters of the Brownings may be found some strictures by both Robert and Elizabeth upon an early book of this great American's, which must pain the admirer of the Brownings as well as of Lowell. It displays a curious insensitiveness to just this power of the Cambridge man's which made him of so much more value to the world than if he had been scholar and nothing more. One can hardly rise from anything like a complete examination of Lowell's prose without the regret that his fate did not lead him to cultivate more assiduously and single-eyed this rare and precious gift for essay — a gift shared with very few fellow-Americans.

A glance among later Victorian prose writers must convince the thoughtful that the essay in our special sense is gradually written less; that as information comes in at the door, the happy giving-forth of personality flies out of the window. It is in shy men like Alexander Smith or Richard Jefferies that we come on what we are looking for — in such as they, rather than the more noisily famed. Plenty of charming prose writers in these latter days have been deflected by utility or emolument away from the essay into criticism, like Lang, Gosse, Dobson, and Pater; into preaching and play-making, like Bernard Shaw; into journalism, like Barry Pain and Quiller-Couch; into a sort of forced union of poetry and fiction, as with Richard Le Gallienne. All these and others still have been touched by fiction for better or worse.

The younger Americans with potential essay ability are also for the most part swallowed up in more "useful" ways of composition. Her old-fashioned devotion to the older idea of the essay makes a writer like Miss Repplier stand out with a good deal of distinction: so few of her generation are willing or able to do likewise. Mr. Howells has reached a position of such authority in American letters that what he produces in the essay manner is welcome — not because it is essay, but because it is he. His undeniable gift for the form is, therefore, all the better. Often he strikes a gait happily remindful of what the essay in its traditions really is: the delightfully frank egoism of his manner covering genuine simplicity and modesty of nature. Since "Venetian Days" he has never ceased to be an essayist.

The twin dangers with the younger essayists both of the United States and England are didacticism and preciosity. The former, I be-

lieve, is most prevalent in this country; and it is of course the death-blow of the true essay. The danger of being too precious may be overcome with years. We should not despair of the essayist: no type of writer is rarer. The planets must conspire to make him. He must not be overwhelmed by life and drawn into other modes of expression.

Our generation has been lucky to possess one English essayist who has maintained and handed on the great tradition: I mean Stevenson. Although, in view of the extent and vogue of his novels and tales, Stevenson's essay work may seem almost an aside, it really is most significant. He is in the line of Charles Lamb. Where a man like Pater writes with elegance and suggestion after the manner of the suave and thoroughly equipped critic, Stevenson does a vastly higher thing: he talks ruddily, with infinite grace, humor, pathos, and happiness, about the largest of all themes — human nature. From "Ordered South" to "Pulvis et Umbra," through many a gay mood of smile and sunshine to the very depths of life's weltering sea, Stevenson runs the gamut of fancy and emotion, the fantasticality of his themes being in itself the sign manual of a true essayist. In the "Letters" no man using English speech has chatted more unreservedly, and with more essential charm: it is the undress of literature always instinctively stopping the right side of etiquette, of decency. The Stevenson epistles drive us on a still-hunt outside of the mother-tongue for their equal, with little prospect of quarry save within French borders.

The essay is thus a literary creature to the making of which go mood and form; and the former would seem by far the paramount thing. Great and special gifts does it demand. 'Tis an Ariel among literary kinds, shy, airy, tricksy, elusive, vanishing in the garish light that beats down upon the arena where the big prizes of fiction are competed for amidst noise, confusion, and *éclat*. But ever in its own slight, winsome way does it compel attention, and gain hearts for its very own. 'Tis an aristocrat of letters: nowhere is it so hard to hide obvious antecedents. Many try, but few triumph in it. Therefore, when a real essayist arrives, let him be received with due acclaim and thanks special, since through him is handed on so ancient and honorable a form.

RICHARD BURTON.

WRITERS IN THE SEPTEMBER FORUM.

MR. PETER T. AUSTEN was born in 1852 at Clifton, Staten Island. Graduated in 1872 at the Columbia School of Mines. Holds the Ph.D. degree from the University of Zürich, and studied for three years at Berlin in the laboratory of Prof. A. W. Hofmann. In 1876 was appointed Instructor in Chemistry at Dartmouth College, in 1877 Professor at Rutgers College and the New Jersey State Scientific School, and in 1893 Professor in the Brooklyn Polytechnic Institute. Has recently given up teaching, and now devotes all his time to professional practice. Is a member of the American, English, French, German, and Russian Chemical Societies, and many other scientific associations.

MR. KARL BLIND, born at Mannheim, Germany, Sept. 4, 1826, was educated at Heidelberg and Bonn Universities. Active for German union and freedom, was imprisoned in Bavaria and Baden before the Revolution of 1848, in which he took a leading part, at Karlsruhe. After participating in the Republican rising led by Hecker, was arrested at Strasburg on a false charge of being implicated in the Paris insurrection in June, and was transported to Switzerland. Was leader of the second Republican rising in the Black Forest, and fought at Staufen. A prisoner of war, was sentenced to eight years' imprisonment, but was liberated in 1849. Was member of the Embassy at Paris of the Democratic Governments of Baden and Rhenish Palatinate. After the overthrow of Ledru-Rollin's rising for the protection of the Roman Republic, was proscribed from France. Carried on a Democratic and National propaganda from England. Coöperated with Garibaldi, Mazzini, and other European leaders. Has published numerous essays on politics, archæology, history, mythology, philosophy, and ancient German and Norse literature.

SIR JOHN GEORGE BOURINOT was born in 1837. Is a son of a native of the island of Jersey, and is a Nova Scotian by birth. Has been Chief Clerk of the House of Commons of Canada since 1880, and has written several works on parliamentary government which are in constant use in the colonial dependencies of the Crown. Is also the author of "The Story of Canada," in the "Nations" series, of "Canada under British Rule" in the Cambridge Historical Series, and of other works. Has been President and is now Honorary Secretary of the Royal Society of Canada, and is also editor of its "Transactions." Is a Knight of the Order of St. Michael and St. George.

PROF. RICHARD BURTON was born in 1859, at Hartford, Connecticut. Received A.B. degree at Trinity College in 1883, and Ph.D. at Johns Hopkins University, 1887. Taught Anglo-Saxon for a year at Johns Hopkins; was managing editor of the New York "Churchman," 1888–89; literary editor of Hartford "Courant," 1890–97; and in 1898 became Professor of English Literature in the University of Minnesota. His published books include three volumes of verse—"Dumb in June" (1895), "Memorial Day" (1897), and "Lyrics of Brotherhood" (1899)—and a volume of essays, "Literary Likings" (1898).

MR. FRANK W. CLARKE was born in Boston in 1847. Graduated at the Lawrence Scientific School, Harvard University, in 1867. In 1869 was Instructor in Chemistry at Cornell, and from 1874 to 1883 Professor of Chemistry at the University of Cin-

cinnati. Since 1883 has been chief chemist of the United States Geological Survey. In 1901 was elected President of the American Chemical Society. Is author of several scientific books and of many scientific papers. Has been a member of the Board of Management of Government Exhibits at the expositions at Cincinnati, Chicago, Atlanta, Nashville, Omaha, and Buffalo; also of the International Jury of Awards at Paris in 1900, where he received the ribbon of the Legion of Honor.

MRS. LEONORA BECK ELLIS, a Georgian by birth, is a Southern writer, whose first magazine work appeared in the New York and Boston periodicals some five years ago. Since that time has contributed extensively to the magazine literature both of this country and of England. Belonging to one of the old Southern families, Mrs. Ellis stands as an exponent of what is distinctively Southern.

PRESIDENT G. STANLEY HALL was born at Ashfield, Massachusetts, in 1845, and graduated at Williams College in 1867. Then went abroad to study at Berlin, Bonn, Heidelberg, and Leipsic. Was Professor of Psychology at Antioch College, Ohio, from 1872 to 1876, and at Johns Hopkins University from 1882 to 1888. Since the latter year, has been President of Clark University, at Worcester, Massachusetts. Dr. Hall has written on psychological and educational subjects, and has translated many German philosophical works. Is founder and editor of "The American Journal of Psychology" and "The Pedagogical Seminary."

MR. EUGENE LIMEDORFER was born near Stockholm in 1864. Studied at the Royal Swedish Lycée in Stockholm, and then attended the Royal Hungarian Gymnasium in Budapest, where he graduated with honors in 1882. Continued his studies at the University of Heidelberg. In 1885 started on a two years' trip through Europe, and parts of Asia and Africa, and in the fall of 1887 came to New York, where he has since resided, making frequent visits to the Northern countries of Europe. Mr. Limedorfer has written "Studien zur Psychologie des Weibes" (A. Hartleben's Verlag, Wien, 1888) and has been a contributor to various newspapers and magazines.

LIEUT.-GEN. DEN BEER POORTUGAEL is a general in the army of the Netherlands, a Councillor of State, and an active member of the Institute of International Law. Is also a Knight of Grand Cross of the Order of the Netherlands Lion, Knight of the Order of Dannenbourg (of Denmark), Knight of the Order of the Iron Crown (Luxembourg), Knight of the Order of the Crown of Prussia, Knight of the Order of the Lion and Sun (Persia). He is the author of works on international law.

MR. JACOB SCHOENHOF was born in Germany in 1839. Came to America in 1861, was naturalized in 1866, and followed a commercial career up to 1885. His experience in trade and manufacturing soon brought him to recognize the antagonism of facts with the generally accepted economic views. As early as 1869 he published in German periodicals his views on the errors of economic theories. President Cleveland appointed him Consul to Tunstall, England, and gave him a commission to inquire into the state of technical education and the economy of production in Europe. Mr. Schoenhof is the author of "Wages and Trade" (1885); "The Economy of High Wages" (1892); "History of Money and Prices" (1896), etc.

MR. BENJAMIN TAYLOR is a Northumbrian by birth, and was educated on Tyneside. After a business training in Newcastle-on-Tyne he migrated to Glasgow, Scotland, where he began to devote himself to literary pursuits. For a number of years past has occupied a prominent position among Scottish journalists, making a special study of economic, social, and industrial subjects. Mr. Taylor is associated with the Glasgow "Herald," and writes also for the leading London weeklies and monthlies.